# VERBAL VIEW OF WINDOWS VISTA FOR THE KEYBOARD USER

by Peter Duran

# ACKNOWLEDGMENTS

# PREFACE

Personal computers are indispensable tools in daily life, in school and in the workplace. Youngsters do their homework with them; employees do their work with them; family members play games on them. Personal computers are found at many public libraries; they permit patrons to use the online card catalog and to gather information on the Internet from around the world. Many colleges and universities require new arrivals to appear on campus with a laptop computer. A few institutions of higher learning offer advanced degrees via online course work.

Certain groups of individuals lack sufficient access to personal computers. Individuals may possess insufficient income to purchase personal computers. Individuals with physical or sensory disabilities may find personal computers unusable with the standard software or hardware. Persons without access to personal computers are placed at great disadvantage in many instances. This so-called Digital Divide is of major public concern.

Windows Vista, from Microsoft Corporation, goes a long way to minimize economic and personal disadvantages. A powerful personal computer with Windows Vista installed may cost $600.00 or less. Vista comes with the Accessibility Center, which lets users customize the keyboard, the mouse, and most aspects of the computer to meet personal needs and preferences.

Computer hardware and software that aid the disabled in personal, educational and vocational pursuits is commonly called Access Technology or Assistive Technology. Microsoft has assumed a leadership role in the development and dissemination of access technology for the personal computer. Microsoft sponsored an Access Day in February 1998 at its headquarters and announced a major commitment to total access to Microsoft Windows and its other products. Microsoft chairman Bill Gates pledged to make the personal computer "the greatest accessibility aid ever." Microsoft Windows Vista with its Accessibility Center goes a long way to achieve this goal.

# Microsoft Windows Vista

This book--Verbal View of Windows Vista--serves two different audiences: users who have worked with computers and Microsoft Windows for a long time and wish to upgrade to Vista, and users who are new to the personal computer and to Microsoft Windows. The main chapters assume that a reader has used Microsoft Windows before and understands the basics -- knows the layout and operation of a standard computer keyboard and how to navigate menus, dialog boxes, lists, and so on. The supplementary sections provide the newcomer to Microsoft Windows with a leisurely tour of the prerequisite material. A newcomer to Microsoft Windows needs to read these sections and get assistance from a computer user who can make the necessary configuration changes so Windows Vista behaves as expected. These modifications include:

Read the sections Logon Screen and Welcome Center Go Away in Chapter 2, and make sure no passwords are required and that the Welcome Screen is disabled. Read the section Control Panel Window in Chapter 7, and enable the Classic view. Read the section Navigation Pane in Chapter 8, and make sure that this pane and the other panes are turned off for the folders listed under the user's name in the right pane of the Start window.

For brevity and to minimize tedium, the phrase Windows Vista, or just the word Vista, is used for the longer expression: Microsoft Windows Vista for the Home. This book assumes that Vista came installed on your computer or will be installed on your computer by a trained technician. The five different versions of Vista are discussed in Chapter 1. You are told the differences, how to decide which is best for you, and how to tell how well Vista will run on your computer.

Vista is designed to adapt to the needs of disabled users in many ways. Vista lets users employ either the keyboard or the mouse to perform virtually all tasks. This tutorial emphasizes the keyboard and keyboard shortcuts because many users find the mouse difficult or impossible to handle. All keyboard commands are listed by chapter.

As you explore Vista, you may come across a feature or shortcut unknown to experts or even undocumented by Microsoft. As a keyboard user, you must learn more of the details of Vista than the typical mouse user. This book includes many techniques (keystrokes, procedures, etc.) very useful to the keyboard user that are not contained in books written for most other users.

The visual appearance of Vista is a principal innovation. Users have the option of switching back to the look of XP, but most users are likely to prefer the fancy, enhanced, and very pretty appearance of Vista. A blind user, like me, cannot appreciate the visual innovations, but it may be helpful to know about them so communication with sighted friends, relatives, coworkers, and technical support staff may occur more efficiently.

There are already many books on the market, some for "dummies" and others for "smart" people, which describe and explain Vista. Some are written for the person who just wishes to get a task accomplished with a computer. Others are intended for the person who wishes to tinker with Vista for the fun of it. Virtually all of these books make three assumptions about the typical reader: the reader has used a computer with a previous version of Microsoft Windows, the reader finds the computer keyboard and the computer mouse equally usable and usually prefers the computer mouse, and the reader is familiar with the visual metaphors and visual conventions used in Vista and finds them intuitive. However, these three assumptions are rarely valid for the disabled reader. Consequently, standard documentation and books converted into accessible form fail to address and meet the unique needs of the millions of disabled users.

This tutorial is written with three types of users in mind: the power user who wants a complete and organized account of keyboard techniques, the disabled user who prefers the keyboard instead of the mouse, and the blind user who must rely on the keyboard and voice or braille access technology. Material about access technology is placed in **Access Notes** and separated from the main text whenever possible.

# Book Organization and Emphasis

Every chapter is kept as simple as possible. Technical terms are kept to a minimum, for the procedural techniques, fundamental ideas and visual cues are the important things. Needed technical terms aren't used before they are explained; please accept my apology for any mistakes in this regard. Nonessentials are omitted so you can give full attention to the important material.

Every chapter is kept as short as possible and, as much as possible, independent of other chapters. There is a single topic per chapter so you can focus on a specific concept or technique. Every chapter is self-contained so you can study them separately.

Every chapter that includes new keyboard commands has a section that summarizes them. It can serve as a quick overview of the keystrokes presented throughout the chapter. This summary occasionally contains additional keystrokes and details of interest for the sake of completeness. Read a chapter's keyboard summary to decide whether the keyboard commands listed therein are sufficiently familiar or whether they need to be studied and practiced.

Chapters are presented in the order that seems most useful. You may need to study another chapter before all the material in the current chapter is

completely comprehendible. This is the case when Vista requires you to employ several different techniques at the same time.

# Accessibility Conventions

Windows in XP are static; that is, they don't change as you work within them. For example, the Menu Bar shows the same menus in all XP windows, and the standard toolbar sports mostly the same tools in all XP windows. However, windows in Vista are ***dynamic***; that is, they change their content as you work within them. For example, the Command Bar in Vista replaces the Menu Bar and the standard toolbar found in XP, and its commands vary from window to window. For example, the Command Bar in the Music folder window has a Play All button, the Command Bar in the Pictures folder window has a Slide Show button, and the Command Bar in the Games folder window has a Parental Controls button. Moreover, commands on the Command Bar may change from task to task. For example, move onto a file in a list, then the Command Bar has Open and Print buttons, but move onto a *folder* in a list, then the Command Bar has Share and Burn buttons. This dynamic behavior presents you with a challenge, which the chapters on various windows address in great detail.

You may revert to the XP format for the Start menu, Control Panel, window layout, etc. In most cases, the newer approaches to user interaction adopted by Vista are better and more straightforward. Consequently, this tutorial only discusses the default user interface elements and procedures used in Vista, with two exceptions.

Control Panel works better with a keyboard when in Classic View instead of Category View, the default view. Thus, this tutorial assumes that Control Panel has the Classic view whenever you need to perform a procedure that involves any of its options. Read the section entitled Control Panel Window in Chapter 7 for the details.

Keyboard navigation works better in windows when nonessential window panes are turned off. The ways to turn off the unneeded and problematic window panes are presented in Chapter 8. This tutorial assumes that the Navigation pane has been turned off in all windows --otherwise keyboard commands won't place keyboard focus in the desired places.

Many step-by-step procedures are presented that let you carry out useful or necessary tasks. They work properly only when Control Panel has the Classic view, when nonessential window panes are turned off, and so on. Please follow the accessibility recommendations offered throughout this tutorial. There are a few instances when keyboard commands don't work as expected; rely on the recommended work-arounds.

# Book Omissions and Disclaimers

No attempt is made to present all the ways to do the common tasks in Vista. Hopefully, the easiest and most efficient ways for you to perform common tasks with the keyboard in Vista were selected for presentation. Known bugs in Vista and its programs are circumvented, and "work-arounds" are used so you can proceed unhampered.

**This tutorial assumes that Service Pack 1 (or later) for Vista is installed on your computer. SP1 introduces a few minor changes to Vista. For example, the Search command no longer resides on the right pane of the Start window. Instead, you must rely on the Win + F key to perform an advanced search. Step-by-step procedures are based on Service Pack 1 behavior.**

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# TUTORIAL OVERVIEW

This book serves two different audiences; users who have worked with computers and Microsoft Windows for a long time and users who are new to the personal computer and to Microsoft Windows. Chapters 1 through 17 assume that a reader has used Microsoft Windows before and wishes to get started with Vista. Chapters 18 through 32 provide the newcomer to Microsoft Windows with a leisurely tour of the prerequisite material.

## *Part 1: Your Computer*

The five versions of Vista are described in Chapter 1, and you are told how to decide which version makes the most sense for you. In Chapter 2, you learn how to turn your computer on and off and how to conserve battery power and energy. User accounts and the two introductory screens, Logon and Welcome Center, are also discussed.

Please read carefully the Computer Keyboard chapters in Part 7 if you are new to computers or are uncertain about some aspects of keyboard operation. Keyboard layout and operation are thoroughly discussed so you may work comfortably and confidently with the keyboard. This tutorial describes every task in terms of the keyboard, not the mouse.

## *Part 2: Your Desktop*

You learn about the Desktop in Vista and how to navigate it with the keyboard in Chapter 3. Desktop is your main work area while in Vista. It's called the Desktop because you use it just as you use a real desk. Chapter 4 covers the Windows Sidebar and its gadgets, a new part of the Desktop in Vista. It gives you instant access to current weather conditions anywhere, current news headlines, and much more. You should carefully read both chapters because they contain lots of techniques about the Desktop useful to you as a keyboard user.

A shortcut key summary occurs at the end of Chapter 4 for the Windows Logo key. Memorize these keys for quick access to Desktop areas and many handy windows in Vista.

## *Part 3: Vista Windows*

Chapters 5 through 9 discuss important types of windows found in Vista. Chapter 5 debuts the Start window where you launch programs, run commands, search for files and folders, and turn off your computer. You'll need to read Chapter 5 before you can perform many step-by-step procedures. Chapter 6 debuts 11 different folder windows and tells you the best ways to navigate them with the keyboard. They display your folders-- documents, personal contacts, and much more. Chapter 7 presents three important explorer windows: **Control Panel** shows you the parts of Vista and its control centers; **Computer** lets you access your disk drives; **Recycle Bin** shows you the junk you discarded--deleted files, folders, and programs. You'll need to read Chapter 7 before you can perform many step-by-step procedures that involve the Control Panel. Chapter 8 describes folder and explorer window components, and tells you which parts to turn off for better keyboard navigation. Chapter 9 describes the layout of the **Help and**

**Support** window, discusses its keyboard navigation, and presents its most useful options--which are many in this revamped Vista version.

### Part 4: Search and Protect Your Computer

Your computer may have thousands of files and folders; however, you will never misplace an important document or e-mail in Vista. Chapter 10 presents various ways to search for a file, folder, program, or command. Vista finds it for you; you don't need to know where it resides on your computer. Moreover, searches in Vista are simpler than in XP; they will make your computer experience lots of fun. Safety and security are two very important goals in Vista, and Vista comes with many ways to protect your information and your computer. Most security features work automatically, but read Chapter 11 to learn about them.

### Part 5: Manage Your Computer Resources

You can interact with your files, folders, and disks in four different ways. Chapter 12 presents the commands for files, folders, and disks found on shortcut menus and executable with shortcut keys. Chapter 13 shows you two ways to format disks--those round flat storage media on which you may place music and videos, and on which you may back up files and folders. Vista offers a new disk format that lets you treat disks as rewritable media. Chapter 14 tells you the various ways you may manage your programs--start them, install them, uninstall them--and make them behave.

You can take a few simple steps to insure your computer's health. Chapter 15 offers several insurance policies for your computer free of charge. They make sure that your computer remains speedy and healthy.

### Part 6: Entertain yourself

You may listen to your music CDs or view your DVD movies as you work. Chapter 16 describes what happens when you play disks and how you control that process with the Autoplay program located in Control Panel.

Chapter 17 debuts the Windows Media Player (WMP) program. WMP manages all of your digital media--music CDs, movie DVDs, pictures, and videos--as well as online entertainment--Internet radio stations. WMP connects to the Internet and downloads information about your music albums. It gives you access to the information most sighted music lovers take for granted found on album inserts--song titles, song artists, and track lengths.

Chapter 17 is a long chapter, for WMP does the work of six different programs. The four tasks mainly concerned with your digital media are presented in that chapter.

Most tasks in WMP are easily performed with the keyboard. However, there are aspects of WMP that are overly complicated and difficult to handle with the keyboard. Windows Media Center (WMC), which comes with Vista, duplicates in a simpler manner many of the functions of WMP, but its user interface is nonstandard and radically different from that of Vista and the programs that come with Vista. (I don't cover WMC in this tutorial because of its bizarre user interface.) You can ignore both programs when you want to look up TV listings. Rely on the Web site www.WirelessTvGuide.com. This web site, intended for cell phone users, is text-based and works well with all assistive technology.

### Part 7: Keyboard and Mouse

This part describes the keyboard and the mouse. Keyboard layout and operation are thoroughly discussed in Chapters 18 and 19 so you may work comfortably and confidently with the keyboard. (This tutorial describes every task in terms of the keyboard, never the mouse.)

You never need to rely on the mouse in Vista or in Office 2007 programs. However, there are older Microsoft programs and third-party programs that occasionally lack keyboard access to essential onscreen items. You need to rely on the mouse keys provided by Vista in its Ease of Access Center (under Control panel) or the mouse keys provided by a screen reader to activate those items. Chapter 20 describes the computer mouse and explains its operation.

### Part 8: Hardware and Software

This part describes the computer and its primary software. Chapter 21 describes the equipment that usually comes with a personal computer. Chapter 22 describes the software that runs the computer, namely Vista, and briefly explains its operation.

### Part 9: User Interface

This part describes the various ways you interact with Vista and other programs.

Chapter 23 introduces the menu concept and related notions by analogy with menus in a restaurant. The three common menus are presented, and then the aspects common to all three types of menus are presented.

Chapter 24 motivates and describes all the parts of a typical program window. Chapter 25 describes the various arrangements for program windows on the Desktop and explains how to tidy them up and even how to clear them off the Desktop.

Vista has many ways to retrieve documents. Chapter 26 summarizes those techniques. The described techniques are useful, and you should practice all of them.

Often, Vista or a program needs to tell you the results of a command, requests a yes/no decision, or asks you a vital question. This kind of communication is typically accomplished with a message box. Often, you need to provide Vista or a program with necessary data -- the name of something or the value for some setting. This kind of communication is accomplished with a dialog box. These two communication boxes are the subject of Chapter 27.

Buttons are controls in VISTA and in other programs that start various activities or change the attributes of various objects. There are four types of buttons: Push Buttons (also called Command Buttons), Option Buttons (also called Radio Buttons), Check Boxes, and Outline Buttons. Chapter 28 introduces all of these features.

Often, you need to supply Vista or other programs with some data--perhaps a file name, a user-defined shortcut key, a date for the clock on the Desktop and so forth. This need is handled in Vista and other programs by a control called a Text Box. A text box is analogous to a fill-in-the blank on a printed form. There are three common types of text boxes: the Edit Box, the Shortcut Key Box, and the Spin Box. Chapter 29 debuts these three text boxes.

Vista and Santa Claus have something in common: they both like to make lists. Santa Claus makes lists of toys and treats for good boys and girls; Vista makes lists of file names, document types and other things for users. Chapter 30 debuts the six list boxes.

### *Part 10: WordPad Word Processor*

You can accomplish many useful tasks in Vista, but the most important is to write and print documents (personal reminders, business letters, and the like) via a word processor. The WordPad program, which comes with Vista, is a mini-word processor powerful enough to meet the daily needs of most users. Most of the user interface elements of Vista are found in WordPad so it is an ideal program with which to practice. Chapter 31 describes the various ways to write and edit documents in WordPad.

WordPad provides standard menus to display commonly used menu items. These very same menus and their items are used in most programs to give consistency to the user interface. Chapter 32 surveys the File and Edit menus found in WordPad.

# CHAPTER 1
# YOUR COMPUTER AND VISTA

You can buy a new computer with Vista already installed with all the needed hardware, or you can buy Vista by itself on a DVD and install it onto a computer you already own. Vista comes in five different versions tailored to meet the needs of targeted markets: two for home users, one for small business owners, one for power users and media enthusiasts, and one for global enterprises. The five versions of Vista are described below and then suggestions are offered on how to decide which version makes the most sense vis-à-vis cost, convenience and performance.

## The Five Versions of Windows Vista

The five different versions of Vista are named Home Basic, Home Premium, Business, Ultimate and Enterprise.

# Windows Vista Home Basic

Home Basic lets users perform common tasks--browse the Internet, send and receive e-mail, capture and view photos, play music, and so on. Home Basic includes all the enhanced security features that protect against spyware and other malicious programs and includes parental controls to protect youngsters while on the Internet. Home Basic lets users transfer files and settings from other computers. Home Basic runs on 32-bit and 64-bit computer chips.

Home Basic only provides the essentials! Many new options and accessory programs found in Vista are not included. In addition, Home Basic looks like XP; it does not have the new, prettier user interface called Windows Aero Glass found in Home Premium.

Minimal computer requirements: 1 GHz 32-bit (x86) or 64-bit (x64) processor; 512MB of system memory; 20GB hard drive with at least 15GB of available space; Support for DirectX 9 graphics and 32MB of graphics memory; DVD-ROM drive; Audio Output.

The suggested retail price for the full package product is $199.00. The suggested upgrade retail price is $99.95.

# Windows Vista Home Premium

Home Premium--on a par with XP Home--includes all the features and programs found in Home Basic and much more. It has the new user interface called Aero Glass, which offers fantastic visual effects and is easier to navigate than that of XP. Home Premium has an integrated search capability; you can start a search from almost anywhere in Vista, and Vista automatically searches through files, folders, and the Internet, as appropriate. Windows Media Center lets users enjoy digital photos, TV shows, movies, and digital music. Home Premium lets users burn DVDs that friends and relatives can play on their DVD players.

Home Premium, unlike Home Basic, offers automatic backup of files and entire folders. Home Premium offers mobile computer users unprecedented flexibility while on the road; it provides power management, wireless networking, and ways to communicate with the devices that keep users connected with family and friends. Most experts recommend Home Premium for desktop computers used at home and for mobile (laptop and notebook) computers used on the road.

Minimal computer requirements: 1 GHz 32-bit (x86) or 64-bit (x64) processor; 1GB of system memory; 40GB hard drive with at least 15GB of available space; Support for DirectX 9 graphics with: WDDM Driver; 128MB of graphics memory (minimum); Pixel Shader 2.0 in hardware; 32 bits per pixel; DVD-ROM drive; Audio Output. Additional requirements: TV tuner card required for TV functionality (compatible remote control optional); Windows Tablet and Touch Technology requires a Tablet computer or a touch screen.

The suggested retail price for full the package product is $239.00. The suggested upgrade retail price is $159.00.

# Windows Vista Business

Vista Business meets the needs of small businesses. Businesses can work more efficiently with the simpler and prettier user interface found in all editions of Vista. The new global search features let personnel quickly and easily find the information they need on the business network and on the web. Powerful new safety features in Vista Business and in Internet Explorer 7 protect the key information vital to businesses. The mobile computing enhancements make it easier to stay connected to employees and other businesses. Vista Business makes it easier to manage how

employees connect to the business network and ensures that they get more out of their computers, both in and out of the office.

The Windows Backup and Restore Center makes protecting and recovering business information and data easier. Shadow copy automatically archives previous versions of files. Encryption technology protects sensitive information and data from unauthorized persons with password-protected shared documents.

Minimal computer requirements: 1 GHz 32-bit (x86) or 64-bit (x64) processor; 1GB of system memory; 40GB hard drive with at least 15GB of available space; Support for DirectX 9 graphics with: WDDM Driver; 128MB of graphics memory (minimum); Pixel Shader 2.0 in hardware 32 bits per pixel; DVD-ROM drive; Audio Output. Additional requirements: Windows Tablet and Touch Technology requires a Tablet computer or a touch screen. (Computers with 64-bit processors have advanced features that can work with Vista Business.)

The suggested retail price for the full package product is $299.00. The suggested upgrade retail price is $199.00.

# Windows Vista Ultimate

Vista Ultimate includes all the features and programs found in Home Premium and in Vista Business. This version of Vista also offers users mobile productivity and a superior digital entertainment experience. It includes Windows Media Center, Windows Movie Maker with high-definition support, and Windows DVD Maker.

This is a perfect choice for those who work from home and need business level networking, computer security and home entertainment all rolled into a single system. Definitely, the choice for Windows power users who want the "ultimate" Vista experience.

Minimal computer requirements: 1 GHz 32-bit (x86) or 64-bit (x64) processor; 1GB of system memory; 40GB hard drive with at least 15GB of available space; Support for DirectX 9 graphics with: WDDM Driver; 128MB of graphics memory (minimum); Pixel Shader 2.0 in hardware; 32 bits per pixel; DVD-ROM; Audio Output. Additional requirements: TV tuner card required for TV functionality (compatible remote control optional); Windows Tablet and Touch Technology requires a Tablet computer or a touch screen; Windows BitLocker Drive Encryption requires a USB Flash Drive and a system with a TPM 1.2 chip.

The suggested retail price for the full package product is $399.00. The suggested upgrade retail price is $259.00.

# Windows Vista Enterprise

Vista Enterprise extends the capability of Vista Business and helps global organizations and enterprises with complex needs, lowers costs, reduces risk to data theft, and stays connected at all levels. Vista Enterprise includes all the features and options found in Vista Business. It provides better data protection via Windows BitLocker Drive Encryption--this new security technology helps prevent sensitive data and intellectual property from falling into the wrong hands if a computer is lost or stolen. Vista Enterprise includes tools to improve application compatibility and helps organizations standardize operations worldwide.

Vista Enterprise is available only to Volume License customers of Microsoft who have Computers covered by Microsoft Software Assurance. These customers may acquire an optional subscription license for the Microsoft Desktop Optimization Pack for Software Assurance.

# Windows Vista Requirements

All versions of Vista require more system memory, video memory, hard disk space, and faster computer chips than their XP predecessors. All versions of Vista support multiple core computer chips, but only Vista Business, Ultimate, and Enterprise can support dual processors. (Ask your assistive technology vendor whether its screen reader or screen magnifier works with multiple core computer chips.)

Vista comes on a DVD disk so your computer must have a DVD drive! Vista also requires an Internet connection, for Microsoft now considers your computer an integral part of the Internet and you a part of the global community of computer users. (All upgrades to Vista are downloaded from a Microsoft website.)

Unlike previous editions of Microsoft Windows, Vista can customize itself to operate on your current computer. Vista will employ the user interface found in XP instead of its prettier new Aero Glass user interface if your video hardware lacks sufficient muscle power and video memory.

Microsoft's recommended minimal computer requirements let Vista run, but aren't sufficient to make your experience with Vista a happy occasion. Most experts recommend:

- 1 GHz 32-bit (x86) or 64-bit (x64) processor

- 2GB of system memory, or higher

- A graphics processor that runs Windows Aero

- 256MB of graphics memory, or higher

- 80GB of hard drive capacity with 15GB free space

- DVD-ROM Drive

The program Upgrade Advisor from Microsoft can check your current computer and determine which version of Vista will work best; the Windows Experience Index will tell you how well Vista works on a new computer. Read the next two sections for all the details.

# Upgrade Advisor

Microsoft provides a program that can survey your current computer and determine which version of Vista will work best and which features of Vista will work on your computer. This program scans your computer and creates a report of all known system, device, and program compatibility issues, and recommends ways to resolve them. Upgrade Advisor also recommends the version of Vista that fits your current computer best. Windows Vista Upgrade Advisor only works with 32-bit versions of XP and Vista! You must download the Vista Upgrade Advisor from the Microsoft website (www.microsoft.com/vista), install and then run this program. Vista Upgrade Advisor does not collect or send any personal data to Microsoft.

The previous paragraph makes it seem a breeze to check out your computer for Vista. There can be pitfalls, however, as illustrated by my personal experience.

My computer automatically connects to the Internet through a wireless network via a broadband connection; so far, so good. I started Internet Explorer, went to www.microsoft.com/vista, searched for and activated the Windows Vista Upgrade Advisor link to commence a download of that program. Not so good; I waited for 20 minutes for the next web page to download and then gave up. I was finally successful in starting the download of that program after three more attempts--probably the server was overloaded with download requests. This program, about 6 megabytes, will take about an hour to download with a dial-up connection.

Next, I ran the downloaded program so it would be installed on my computer. The install process began and then informed me that I needed to

download another program and install it before I could continue to install the Upgrade Advisor.

Back at the Microsoft website for Vista, I searched for and activated the necessary download link. Next, I installed the companion program, and then I installed the Upgrade advisor.

A shortcut for the Upgrade Advisor was placed on the Desktop. At last, I activated this shortcut and waited for the Upgrade Advisor to give me the good or bad news about my computer hardware and installed software. The good news: my XP laptop can run Vista Business with no problems or restrictions. The bad news: ten hardware drivers may have problems, and I must go to the web sites for these drivers and download Vista compatible drivers so my equipment still works properly. Note that even though I bought a laptop with XP that claimed to be Vista ready, it has these driver problems to address.

A computer two years or older will no doubt have many compatibility problems with hardware drivers and will most likely lack sufficient system resources to run all of Vista. Therefore, you must carefully consider the costs to upgrade your computer hardware and to buy Vista.

Buy the full version of Vista Home Premium for the best value at $239.00. You are able to upgrade Vista Premium at any time to Vista Business or Vista Ultimate for an additional charge, for all Vista versions are on the Vista DVD you receive.

Get a cost estimate to upgrade your computer hardware from a reliable computer store. If the cost to upgrade your current computer exceeds $200.00, don't upgrade that computer and don't buy Vista Premium separately. Instead, buy a brand new Vista computer. You can buy a quality computer with Vista already installed and ready to go for about $600.00, and save all the hassle with incompatible drivers and insufficient system resources. You also get a computer with a warranty and are assured that Vista will run properly.

# Windows Experience Index (WEI)

It is a mistake and often a disaster to assume that the upgraded system or the new system will work properly right out of the box. Avoid interruption of your work or educational pursuits by keeping the current computer in place until the replacement works as desired. (The folks at the IRS didn't follow this advice a couple of years ago. They assumed that the replacement system would work as the developer claimed. It didn't, and the IRS lost over 100 million dollars in tax revenue because of system problems.)

I took my own advice and bought a new laptop with Vista Premium already installed on which to write this tutorial about Vista; I will upgrade my XP laptop to Vista as soon as I backup and also transfer all my personal files and folders to my new laptop.

# Windows Experience Index Overview

Vista (every version) can check out its home--your computer--for comfort and roominess and adjust its living habits accordingly. Windows Experience Index (WEI) is a feature built into Vista that tells you how well Vista and other software will perform on your computer.

The analysis and customization is performed by the Windows System Assessment Tools (WinSAT). They assign performance scores numbering from 1 to 5.9, to the key hardware components, calculate an overall performance score for the computer, and then customize Vista to match these performance scores. The base score and the scores assigned to the key hardware components make up the Windows Experience Index. (Performance scores of 6.0 and beyond are not defined so the Windows Experience Index can be extended in the future to accommodate new hardware technology.)

The purpose of the Windows Experience Index is to make it easy for you to match application software performance with your computer's resources. For example, a computer with a Windows Experience Index of 3.0 will optimally run programs that have Windows Experience Indexes of 3.0 and below. On the other hand, a computer with a Windows Experience Index of 2.0 won't satisfactorily run programs that have Windows Experience Indexes beyond 2.0. (Software developers are encouraged by Microsoft to put Windows Experience Index notifications on their products so customers will know how they will run on their computers. Check performance scores before you buy programs!) In addition, the Windows Experience Index can estimate the overall improvements you can expect when you modify your computer's hardware.

The key hardware components measured and rated by WinSAT during its analysis are the processor, the memory, the graphics card, and the hard disk. While the processor, memory, and hard disk are assigned one sub-score, the graphics card is actually assigned two sub-scores.

The Processor sub-score measures the performance of the processor when tasked with several common Windows usage activities including compression and decompression of files, encryption and decryption, and video encoding, just to mention a few. The Memory sub-score is based on

the amount of available physical memory in the computer as well as the speed with which the actual chips move data in and out of memory.

The first of the two graphics card scores, the Graphics sub-score, indicates how well a computer will work with the new Aero Glass interface and play back Windows Media video. This measurement is based on the amount and bandwidth of dedicated video memory, as well as DirectX 9 support and the capability of the card's WDDM Driver (Vista Display Driver Model).

The second of the two graphics card scores, the Gaming Graphics sub-score, is based on the frames per second at which the graphics card can handle different textures. Other factors that contribute to the sub-score include Direct 3D 9 support and Pixel Shader 3.0 support.

The Primary Hard Disk sub-score measures disk bandwidth in megabytes per second. Advances in hard disk technology have made this sub-score pretty standard, as most modern hard disks will typically score above 3.

# PURCHASE CHECKLIST

Vista helped me decide which of the dozen or so laptops on display at my local Office Depot I should purchase. Follow these steps when you wish to buy a Vista computer, laptop or desktop:

1. Ignore the sales staff as I did; they assured me that all the laptops would run my programs just fine. Not so!

2. Consider a computer that has Vista Premium (or perhaps Vista Business) installed for the best value. Yes, you can upgrade Vista at any time, but the computer may not have the needed hardware installed to accommodate the Vista upgrade.

3. Rate the computer before you buy it. Vista can rate the computer's performance and customize its own operation on that computer for you. You will need sighted assistance to perform the necessary steps. (1) Turn on the computer. (2) Bring up the Start menu. (3) Bring up the Control Panel. (4) Pick the System and Maintenance item. (5) Pick the Performance item. (6) Pick the Check Your Computer's Windows Experience Index Base Score item. (7) Review the base index and the individual indexes for the hardware components.

The base index measures the overall performance of your computer. If you have recently upgraded your hardware and want to find out if your base index has changed, activate the Update My Score item. If you don't have a base index and hardware indexes, activate the Score this Computer item.

Most experts recommend a minimum Windows Experience Index of 3.0 or higher for the Aero Glass interface and for the various hardware components (hard drive, system memory, video memory) to ensure good computer performance. A lower score may mean that your computer runs very slowly on some tasks or may be unable to support various Vista features--like the enhanced graphics user interface called Aero Glass. Vista will reconfigure itself to accommodate the available system resources, but why settle for less performance? The cost difference between a computer with a 3.0 index and a computer with a lower index may be as little as $75.00.

Be aware that mere price does not ensure higher Windows Experience Indexes. Of the ten laptop computers I checked out, several lower priced computers had more hardware and higher Windows Experience Indexes than the more expensive models. I purchased a demo laptop for $600 with a Windows Experience Index of 3.0 for the Aero Glass user interface and of 4.0 or more for the various hardware components. A good deal!

Here's an overview of the Windows Experience you can expect from a computer that has these base indexes:

A computer with a base index of 1.0 or higher has sufficient power to perform general tasks--run office applications (Microsoft Word, Microsoft Excel), browse the Internet, and send and receive e-mail. However, a computer with this base index is generally not powerful enough to run the Windows Aero Glass interface or the advanced multimedia experiences that are available with Vista.

A computer with a base index of 3.0 or higher can run the Windows Aero Glass interface and most basic features of Vista. Advanced features of Vista may not have all of their functionality available. For example, a computer with a base score of 3.0 can display the Vista theme at a resolution of 1280 x 1024, but will struggle to run that theme on multiple displays concurrently. Alternatively, it can play digital TV content but might struggle to play High Definition Television (HDTV) content.

A computer with a base index of 4.0 or higher can run all the features of Vista with full functionality and support high-end, graphics-intensive experiences--multiplayer and 3-D gaming and recording and playback of HDTV content.

# Windows Experience Index Scores

An overall score of 3.0 will serve most users well in most situations. However, for those of you who have explicit needs, a brief description of scores can help you pick just the right computer.

Office Chores: A computer used mostly for office tasks--word processing, spreadsheets, e-mail, and web browsing--should have high CPU and memory scores. Scores of 2.0 or higher are usually sufficient in the hard disk, desktop graphics, and 3D graphics categories.

Video Games and 3D Graphics: A computer used mostly for display of fancy graphics programs--digital video editing applications or realistic role-playing games--should have high RAM, desktop graphics, and 3D gaming graphics scores. Scores of 3.0 or higher are usually sufficient in the CPU and hard disk categories.

Media Center: A computer used mostly as an entertainment center--recording HDTV programs or playing DVDs--should have high CPU, hard disk, and desktop graphics scores. Scores of 3.0 or higher are usually sufficient in the memory and 3D graphics categories. (Vista has more and fancier games than XP. The games have recommended Windows Experience Indexes for best performance.)

# Vista Benefits

Vista replaces its predecessor XP. It's not a mere upgrade to XP; rather, it's an entirely new operating system for the computer. Buy a new computer, desktop or laptop and you get Vista whether you want it or not. The only real decision you have as a computer user is to stay with the familiar XP on your current computer or venture into the unknown with an upgrade to Vista. Here are a few cogent reasons why you should embrace Vista.

# More Crash Proof

Contrary to rumor, Vista surpasses all its predecessors in stability. Most computer experts agree that Vista (with any necessary upgrades to hardware drivers) works better. Just make sure your computer has sufficient hardware resources so Vista doesn't also work much slower!

# Improved Accessibility

Disabled users have often complained that manufacturers of software don't take accessibility seriously; they claim, often correctly, that accessibility comes last, if at all, in the list of features and functions touted by developers. Not this time. Microsoft, to its credit, involved developers of

screen readers, screen magnifiers, and onscreen keyboards throughout the crucial development steps of Vista; developers of accessibility tools were invited to Microsoft headquarters and worked with the Vista team to ensure a seamless integration of accessibility options. Those developers who took Microsoft up on its offer were able to release their accessibility products on the very day Microsoft released Vista to the consumer market.

Microsoft has made its own accessibility tools a prominent feature of Vista; its Access Center offers many useful tools for older users and users with a variety of disabilities.

Microsoft provides free of charge Windows Vista accessibility tutorials on its website: www.microsoft.com/enable/training/windowsvista. Download the free Word document named Windows Vista for a clear and comprehensive discussion of accessibility features found in Vista's Access Center. This 100-page document describes all accessibility features and tells you which of them would benefit a user with a particular need or limitation.

**Access Note:** Blind users, however, must rely on a screen reader from another manufacturer, because the screen reader that comes with Vista (Narrator) has limited usefulness. Narrator does read menus and other onscreen items in Vista, but doesn't work with Office 2007 from Microsoft and with popular programs from other developers.

You can expect great accessibility throughout Vista itself! This doesn't mean that you have access to all of its accessory programs. For example, the new Calendar program has little accessibility.

# Enhanced Security

Microsoft considers every user of Vista to be an active participant in the global community through the Internet. Thus, Microsoft has made security a major goal in Vista. There are many built-in protections to ensure that personal data and your computer are safe from thieves, scam artists, and the like who prowl the Internet for victims. Windows Defender, part of Vista, blocks spyware and other malicious programs. Internet Explorer 7, the newest incarnation of Microsoft's web browser, has a pop-up blocker so you aren't beleaguered by pesky ads and the like. Improved User accounts let computer owners protect their computers from unauthorized persons and protect youngsters from Internet predators and pornography. No free antivirus program comes with Vista, but now Microsoft offers its own antivirus subscription service.

Microsoft has received lots of criticism in the past about Internet Explorer's flaws that let hackers invade your computer. Internet Explorer 7 works quite differently from its "buggy" predecessors. Protected Mode shields Vista from actions taken by Internet Explorer or any Internet Explorer add-ins. Therefore, even if malware breaks Internet Explorer's security barriers, it can't harm your computer.

Internet Explorer 7 also has an anti-phishing filter. That is, you are warned about websites that masquerade as legitimate institutions--banks, governmental entities, and the like--in an effort to make you divulge personal information--such as social security numbers, etc.

# Instant Search

Hard drives and removable drives are huge and hold the tens of thousands of documents, e-mails, pictures, and music tracks that many users accumulate over time. Thus, Microsoft has made the ability to search for stuff a major feature throughout Vista. Vista, in its spare time, creates an index of every bit of information on your computer. So, in a search box, you can type a few words--in a file or folder name, in the subject line of an e-mail, in a letter or document, in the title of a photo or song--and find it immediately (an instant search). You can customize an instant search so you find just the right piece of information. You can even save a search for repeated use. There's more. You can add personal notes, called search tags, to files and folders and search for them. You don't need to remember where a piece of information resides on your computer; Instant search immediately finds your stuff!

# Extended Compatibility

Vista has more compatibility with new hardware, old software, and industrial standards. Here are the details.

# Hardware Connection

Vista expects and prefers USB and Fire Wire ports instead of Parallel or Serial ports; both of these ports are considered obsolete! A computer bought today with Vista only has USB and Fire Wire ports.

You are urged to buy peripherals--printers, scanners, flash memory drives, keyboards, mice--only with USB connectors. Typically, you connect a device to any USB port, and Vista immediately recognizes the device--no messy and complicated hardware configuration required! (Buy hardware that doesn't require the installation of a hardware driver for simplest setup.)

# Old Programs

Users who have favorite programs that run on prior versions of Microsoft Windows will be pleasantly surprised. Vista has a Compatibility Mode that makes old programs think they are on Windows 98 or XP. (My 10-year-old version of OpenBook runs fine under Vista in Compatibility Mode.)

# Open Standards

Microsoft has created for many years its own proprietary standards. Recent events have compelled Microsoft to develop the use of more open standards. Therefore, users of Vista will find it much easier to exchange documents and other kinds of files. Vista fully supports the worldwide XML standard for file content. As a result, users will now see file suffixes with the letter X added when the file has XML content. Example: .docx, etc.

There are exceptions to the open standard philosophy. For example, you can't play music tracks from iTunes (owned by Apple Corporation) with Microsoft's music player.

The benefits of Vista will encourage users of XP to upgrade to Vista. Better accessibility, superior performance, and enhanced security features are three good reasons to switch.

# Vista Installation Options

You perform an **upgrade** to Windows when you replace it with a newer version and leave all of your personal files, folders, and installed programs intact. You perform a **clean install** of Windows when you completely erase your hard drive, install the newer version of Windows, re-install all of your personal programs, and copy all of your personal files and folders back onto your hard drive--whew, lots of work! Obviously, you want to perform an upgrade whenever possible instead of a clean install.

Here's the good news: Vista looks very different on the outside--its aero glass user interface looks 3D, looks prettier, and lets users work more efficiently. In addition, Vista works very differently on the inside--Microsoft took big pieces of its more secure business systems and cut and pasted them together to form the heart of Vista. Here's the bad news: only versions of Windows that have components akin to Vista are upgradable. You can upgrade only XP Home, XP Professional, and Windows 2000; all other versions of Windows require a clean installation.

# Upgrade XP or Clean Install Vista

You must buy a copy of Vista--either the Upgrade Edition or the Full Edition. If you purchase Vista Ultimate, then you may purchase two Home Premium licenses online for $50.00 apiece which you can install on two other computers you have at home or at work. Many retail stores offer free installation of Vista to get your business. So, call around for the best deal on Vista and often free data backup and Vista installation by trained staff.

Recall that the Upgrade Advisor will tell you what hardware and software modifications are required and which version of Vista will run best on your current computer.

# Vista Activation and Registration

Microsoft owns Vista even after you buy a separate copy or buy a computer with a copy of Vista pre-installed. A copy of Vista is only *licensed* to you. Moreover, a licensed copy is only permitted on a single computer! You could buy a single copy of Windows before XP and install that copy on an office computer, a home computer and on a laptop and ignore the fine print in the license agreement that forbids this piracy.

Microsoft prevents Vista piracy with copy-protection technology called Vista Activation. Vista, as part of its setup process, scans your computer's hardware and ties a list of this hardware to the Vista Product ID and transmits both to Microsoft via an available Internet connection. You can also activate Vista via a telephone call to Microsoft customer support when no Internet connection is set up.

You may ignore the activation process for 30 days, but thereafter Vista ceases to work properly--you are unable to create new files and update old files--until the activation process is performed. Vista periodically reminds you to perform the activation process. If you buy a new computer, the manufacturer may have already activated Vista for you. No personal information is transmitted to Microsoft during the activation process--only a list of the computer's innards is recorded!

You must have an Internet connection set up to activate Vista online. You must use an automated telephone system (not a real person) to activate Windows Vista by telephone. Here are the steps to activate any version of Windows Vista manually:

1. Pop up the Start window; pick Computer on the right pane.

   An explorer window appears which shows your computer's disk drives and other hardware if any.

2. Move onto the Command Bar; pick System Properties.

A window appears which shows information about your computer.

3. Pick the Activation link.

This link is unavailable if your computer is already activated. (A message--Windows is activated--appears at the bottom of the window.)

4. Choose the Vista activation method that you prefer; follow the onscreen instructions.

Attempts to install the same copy of Vista onto another computer are foiled, because Vista informs the user that this copy is already in use on another computer.

There is also a voluntary Registration Process. You transmit to Microsoft personal information--your name, address and so forth--so Microsoft can send you important notices, as well as ads when permitted.

# CHAPTER 2
# COMPUTER TURN ON AND TURN OFF

You are no doubt anxious to play with Vista. A press of the power button is sufficient to power up your computer and start Vista. Then you will encounter the Logon Screen and then the Welcome Center screen. This chapter discusses these two screens, explains User Accounts, briefly describes Windows Vista real estate, and finally describes various ways to turn off your computer. (Chapter 5 describes more fully where the log off and shut down options reside and how to reach them.)

Microsoft has made security a major goal in Vista. User accounts protect your computer and your information from others--family members, neighbors, friends, coworkers--who may have direct access to your computer. Please first read about User accounts and the Logon and Welcome Center screens, and then turn on your computer.

You need to know these facts about User accounts before you logon: (1) Users are assigned User accounts. (2) User accounts have account names. (3) User accounts may or may not require passwords. (4) The logon process depends on the User account options in effect.

# User Accounts

Vista, born in a business environment, permits multiple users to share the same computer. Users are assigned User accounts so their personal computer settings and their personal documents are protected and kept confidential. User names distinguish User accounts; optional passwords keep them secret and safe from other users. Briefly browse through this section and then read the next section where the fun begins.

**Access Note:** User accounts in Vista are better organized and work better than their counterparts in XP. Screen reader users will have no problems with the User Account screens.

There are three kinds of User accounts: administrator, standard, and guest.

## Administrator Accounts

You start with one administrator account created for you by Vista--with no required password--so you can access your computer. This master account lets you set up your computer, install software and hardware, and create, modify, or remove other User accounts. You control your computer through this master User account and decide who else gets to use your computer and what they are permitted to do. You are urged to add a logon password to this administrator account as soon as it's convenient, so others can't logon to this account and snoop through all your computer's files and folders or do harm to them.

You can create more administrator accounts if you wish--one for mom and one for dad, etc. Assign logon passwords to all administrator accounts to prevent unauthorized use of these accounts.

**Remark:** You need to know about the Start window and the Control Panel to perform this task. So get help to assign passwords or come back to this topic after you read the chapters about the Start window and the Control Panel.

Here are the steps to add, delete, or change passwords for User accounts:

 1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

 2. Pick the User Accounts item.

   A window pops up filled with links.

3. Move onto the desired link with the Tab key and press the Enter key to activate that link.

You are ready to work with passwords. The available links are listed and described next.

**Create a password for your account:** enter a password only familiar to you. Remember, capitalization matters! Fill in the Hint box as a further reminder to you--title of favorite song, name of favorite teacher, and so on. Don't put the actual title or name in the hint; the hint appears onscreen when anybody enters your account's password incorrectly. Be sure that your hint makes sense only to you and relates to your password!

**Change your password:** Change the logon password occasionally to discourage friends, roommates, or colleagues who may have found a copy of your password or figured it out. Change it frequently when you have important or sensitive data to protect. To do so, pick this link, enter your current password, enter your new password, confirm the new password by re-entering it, enter a relevant password hint, then select Change Password.

**Remove your password:** You may consider a logon password a mere nuisance, for you get the logon screen every time you turn on your computer. You don't need a logon password if you are the only computer user and if no important, personal, or embarrassing information is at risk. Select this link, enter your current password, and then select Remove Password. Voila! Your password is gone and anyone can access your account.

**Password reset disk:** if you forget your logon password in XP, then you are out of luck. You are unable to access your computer and all of its precious data. This is not a problem in Vista. You can bypass the logon password when you forget it because you are able to create a password reset file or disk. Just put this disk into the computer drive, and Vista lets you logon. Immediately thereafter, change the current logon password to a more unforgettable password. By the way, no matter how many times you change the logon password, the password reset disk will still work. Pick the Create a password reset disk item in the left task pane to make a recovery disk.

Make all the required changes. Press the Alt + F4 key when finished to exit the User Account window and program.

# Standard Accounts

A shared computer looks and acts tailor-made when users enter their own User accounts--all accessibility options, most computer settings, and Vista

appearance and layout are customized for them. Moreover, all their files and folders can be protected with passwords so other users (except for administrators) can't snoop.

You are urged to create standard User accounts for all those who frequently share your computer--your kids, friends, and other family members. Users with standard accounts are restricted to their own files and folders but have access to the available computer resources and to e-mail and the Internet.

Also, create a standard User account for yourself, and do all of your personal work in that account. Only enter your administrator account when you wish to install software or hardware or need to create or remove other User accounts. This strategy increases your computer's security.

# Guest Account

Guests--the babysitter, a friend from out of town--can log onto the computer with the Guest Account. Pick the "Manage another account" link to add or remove the Guest Account. This User account lacks password protection so there is no privacy. Moreover, Vista real estate, the Desktop for example, looks like the previous guest left it. A guest can run programs and get onto the Internet just like other users.

# Recommended Accounts

An account created in Vista automatically has Standard Account status. You must deliberately choose Administrator or Guest status.

In a family, the adults usually have password-protected Administrator accounts, the kids have Standard accounts, and a babysitter or a visitor uses the Guest account.

In a dorm or shared apartment, the computer's owner should have the only Administrator account, and the roommates have Standard accounts or use the Guest account.

# Create User Accounts

A computer administrator can set up or modify a User account in a few steps. Here are the details:

  1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick the User Accounts item.

3. Activate the "Manage another account" link.

4. Activate the "Create a new account" link.

5. Type a name for the User account, and pick an account type.

   Vista lets you set up an Administrator Account or a Standard Account. Pick Standard User unless you have a very good reason to create another Administrator Account!

6. Activate the Create Account command to finish.

   Vista creates that User account and assigns a random user icon (little picture) to that User account. No user password is assigned; you assign a password to that User account in a separate step.

7. Close this window when you are finished with User accounts.

Pick the Close item on the File menu or press Alt + F4.

All changes take effect immediately.

# Modify User Accounts

A computer administrator can modify a User account in a few steps. Here are the details:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick the User Accounts item.

3. Activate the "Manage another account" link.

   A window appears containing the current accounts.

4. Pick the account you wish to change.

   A new window appears with the available options. They include the following:

**Change the Account Name:** Here's your opportunity to correct a mistyped name or to provide a different, perhaps better, name.

**Create/Change a Password:** Every User account should have a password to keep out other users. Here's your opportunity to add a password or alter the current password.

**Remove the Password:** You can remove a password from a User account if you believe that it is unnecessary or just a nuisance.

**Change the Picture:** You may substitute any picture you want for the original randomly assigned icon.

**Change the Account Type:** You can switch an account's status between Administrator and Standard at any time to give a particular user more or fewer access privileges.

**Delete the Account:** Only employ this option when a user is banned from your computer or when that account has no further purpose. Delete a User account, then all the files and folders therein vanish for good! Neither System Restore nor the Recycle Bin can get them back. So, back up any files or folders you want to keep in that account before you remove it. You can't delete the default administrator account, because you need it to manage your computer; however, you can delete all other administrator accounts you have created.

**Set up Parental Controls:** Protect kids from themselves and from others. You are able to monitor their activity on the Internet and check what programs they have used.

Close this window when you are finished with User accounts. Pick the Close item on the File menu or press Alt + F4. All changes take effect immediately.

# Disable user Accounts

Standard User accounts have two virtues: First, users have privacy; their personal files and folders are kept safe and confidential. Secondly, users have their own custom computer configuration. Visually-impaired users, when they logon, can have screen readers or screen magnifiers come alive just for them. Users may have their preferred programs launch at logon. Standard User accounts also have one major drawback: Vista doesn't let them carry out many computer tasks--alter computer settings, and install software or hardware. Vista prompts for a password for an administrator account when they try. In addition, many users are impatient and don't want to bother with User accounts and passwords when they power up their computers. So be it! There are a few ways to bypass User accounts and password entry.

Make all User accounts administrator accounts without passwords: all users have complete access to every computer activity. Vista will never request passwords or display pop up Permission Screens.

Turn off User Account Protection: if you flip this switch, then Vista eliminates User accounts entirely.

Don't do either if multiple users have access to your computer. All of them can intentionally or accidentally harm your computer--alter important settings or delete important files! If you are the only user, then create a standard account for yourself without a password and routinely logon with that User account. Then, at least you won't accidentally do major damage to your computer. (Rely on the default administrator account when you need to manhandle your computer.)

# Annoying Permission Screens

As mentioned, Microsoft has made Internet security a major goal in Vista. Vista can't tell whether a program or an e-mail may cause harm or just go about its business. Here's the solution to this dilemma: Vista asks for your permission to continue if it suspects a problem or danger. You should cancel a request to continue an action if you didn't initiate it or you don't know what will happen, and you should give permission otherwise. (Vista's permission screens are called User Account Protection.)

Impatient users complain about permission screens in Vista just as some drivers complain about seatbelts in cars. They are intended to protect both. Those who disable both may end up in a computer repair shop or an emergency room or the morgue. So take the few seconds it requires to protect yourself and carefully read permission screens and definitely buckle up. (Don't turn off User Accounts unless you have a good firewall program, a good up-to-date antivirus program, and like to take unnecessary risks with your computer's health.)

Here are the steps to turn off permission screens and user Accounts for the daredevils among you:

 1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

 2. Pick the User Accounts item.

 3. Activate the "Turn User Account Control On Or Off" link.

As you try to disable them, Vista pops up one final permission screen: Give permission to continue.

4. Uncheck the Use User Account Control (UAC) check box.

5. Finally activate the OK button.

   A window appears and tells you to restart your computer.

6. Activate the handy Restart Now button to do that.

# Switch between User Accounts

Here are two examples of the usefulness and power of User accounts.

**At home:** Mom powers up the computer and enters her User account. She launches her recipe program and the WordPad program so she can print a few of her favorite recipes for the next door neighbor. Her daughter rushes in and wants to check her e-mail. No problem. Mom stands ups; the daughter sits down and switches to her personal User account. Reads her e-mail and gives the computer back to mom. The daughter stands up; mom sits back down and switches back to her account. Like magic, there are her two programs, just as she left them.

**At work:** It works the same way; co-workers may share the office computer. The bookkeeper keeps financial data private with a top-secret password. The research engineer keeps future developments confidential also with a top-secret password. (The paranoid office co-worker may even encrypt files and folders as further privacy protection.)

**Remark:** You don't need to switch User accounts when you need to make a computer modification. Just make the change; when Vista prompts for a password for an administrator account, enter it to continue. How convenient!

Don't restart or shut down the computer while other users are logged on, or they will lose any work in progress. You will no doubt forget that, so Vista warns you and gives you the opportunity to let them save their work.

**Remark:** User switching slows down computers with insufficient memory and horsepower. The current user should log off before another person logs on; that way, only files and programs for the active user are kept in memory.

# Log On Screen

Press your computer's power button. Vista stirs and comes alive.

Vista comes with a single User account, an administrator account with no required password, and you aren't prompted for User account identification. Vista just goes about its start up business.

Assign a password to that User account or add more User accounts, then the Logon Screen appears at startup. It shows a horizontal list of User accounts. They have icons over them--picked at random by Vista.

Move left and right with the arrow keys through this horizontal list of User accounts until you reach the desired User account, then tap the Enter key. Vista continues along its merry way when no password exists for the picked User account. It prompts you to type the required password otherwise. Type the password and tap the Enter key. Vista continues to load if you type the correct password with the correct capitalization. It prompts you with the password hint (you provided when you assigned that password) if entered incorrectly; try again.

**Access Note:** The logon screen isn't really a window. Rather, it's just a group of controls on a secure desktop. There's no real window so a screen reader may fail to read the logon screen properly.

Tap your screen reader's Read Window key to hear prompts--like the password hint. Tap the Enter key when a User account has focus before you attempt to type a password--or else nothing happens, and you hear nothing.

The logon screen has three command buttons listed across the bottom of the screen. The little rectangular blue button, labeled Ease of Access, in the bottom-left corner lets new users enter the Ease of Access Center where they may determine which accessibility features they may enjoy and find useful. This same button in the Control Panel lets new users browse through and try out all the available accessibility options. The little rectangular red button, labeled Shut Down, in the bottom-right corner lets users turn off the computer. (The name of the operating system, e.g., Windows Vista Home Premium, appears in the bottom center of the screen.) The little arrow, just right of the Shut Down button, labeled Shut Down Options, displays a menu with three turn off options: Sleep, Restart, and Shut Down.

**Access Note:** Rely on the Tab keys to navigate through logon screen elements. Tap the Enter key to activate a button that has keyboard focus. Rely on the Arrow keys to move through the horizontal list of User accounts. Tap the Enter key to pick a User account that has keyboard focus.

The logon screen disappears, and you hear a chime. A welcome screen appears briefly with the word "welcome" on it, and it vanishes.

The logon screen may reappear every 10 minutes whenever you don't interact with your computer. You may stop this annoying behavior if it occurs:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick the Personalize item.

3. Pick the Screen Saver item.

4. Uncheck the On Resume, Display Logon Screen check box.

5. Activate the OK button and tap the Alt + F4 key.

   You exit Control Panel.

Thereafter, the logon screen will only appear when you power up your computer or when you deliberately pop it up with the Win + L key or invoke it from the Shut Down Options menu on the Start window.

# Welcome Center Window

Vista either skips over the logon screen, or displays the logon screen so that you may pick a User account. Next, it displays the Welcome Center window. This window appears every time you power up until you uncheck the Run at Startup check box in its lower-left corner.

The Welcome Center shows multiple items of interest to new users. Activate their buttons to learn about them or to use them.

# Welcome Center Contents

The Welcome Center window has three horizontal sections. The top section displays statistics about your computer. It shows your version of Vista, the computer processor and its speed, the amount of computer memory, and the computer's name.

You can activate its Show More Details link and view several things including the Vista product ID and the Windows Experience Index, which shows your computer's Vista compatibility rating. Here, you can also change a few settings such as your computer's name.

The center section is labeled **Get Started with Windows**. It displays items that let you become more familiar with Vista as well as customize your

computer. (Activate the Show All 14 Items link in this section to display a complete list of items for this section.) They are a great way to get your computer configured.

The bottom section is labeled **Offers from Microsoft.** It displays items that you can pick to get even more stuff for your Vista computer--Microsoft's new Windows Live programs, for example. (Activate the Show All Seven Items link in this section to display a complete list of items for this section.)

Here are brief descriptions of the 14 items found in the center section of the Welcome Center window.

**View Computer Details:** this item describes your computer--its version of Vista, the processor, available memory, and so on.

**Transfer Files and Settings:** this item lets you move all your old computer's files, folders, and settings onto your Vista computer.

**Add New Users:** this item displays the User Accounts screen so you can set up User accounts for family members, coworkers, etc.

**Windows Anytime Upgrade:** Microsoft lets you upgrade to another, more expensive and more extensive, edition of Vista. However, run the Upgrade Advisor before you do, to be sure your computer has the necessary resources.

**Connect to the Internet:** this item helps you set up your Internet connection.

**What's New in Windows Vista:** this item, meant for XP users, introduces the enhanced and new features in the version of Vista installed on your computer.

**Personalize Windows:** this item lets you customize the Windows Desktop and much more. (Skip this item unless you are a long-time Windows user.)

**Register Windows Online:** skip over this item unless you want to receive junk e-mail from Microsoft.

**Windows Media Center:** this item lets you set up the Windows Media Center where you may record TV shows and much more.

**Windows Basics:** this item tells newcomers to Windows about the keyboard and mouse, files and folders, and so on.

**Ease of Access Center:** Microsoft makes sure that users are aware of the Accessibility Options in Vista. (XP displayed them in hard-to-find submenus.) Microsoft considers accessibility of Vista very important, and gives it a prominent place in Vista. The little blue button in the Welcome Center's bottom-left corner also lets you enter the Ease of Access Center.

**Back Up and Restore Center:** this item helps you back up your important files and folders. It describes the back up options available for the version of Vista installed on your computer.

**Windows Vista Demos:** these little movies in Vista's Help program help you with different Vista tasks. (Not accessible with screen readers.)

**Control Panel:** here's where you manhandle your computer--change computer settings, change the look of Vista, and much, much more.

# Welcome Center Go Away

As stated previously, the Welcome Center screen appears every time you power up your computer. The next time it appears, and you decide you have read it once too often:

1. Uncheck the Run at Startup check box on the Welcome Center screen.

   Move onto this check box with repeated taps of the Tab key, and then tap the Space Bar key to uncheck it.

2. Close the Welcome Center window.

   Pop up its shortcut menu with the Alt + Space Bar key; pick Close.

# Welcome Center Come Back

You may need to access an option listed on the banished Welcome Center screen. Here are the steps to get the Welcome Center and all of its options back:

1. Pop up the Start window.

2. Activate the All Programs button.

3. Display the Accessories menu.

4. Pick the Welcome Center item.

Now, you are back in business--the Welcome Center screen appears every time you logon.

# Turn Off Your Computer

Microsoft released XP on October 25, 2001 and released Vista over 5 years later on January 31, 2007. Meanwhile, the personal computer changed a lot and so did user requirements. Now users primarily buy laptop, notebook, and mobile computers instead of desktop computers. These portable computers are now affordable and as powerful as desktop models. They serve as entertainment centers, communication devices with the Internet, and as standard office equipment. Users expect them to work as reliably as telephones and to work 24/7.

Vista has options that let you restart your computer with a key press and that let you conserve power. You have various ways to either log off (exit your User account) or power off (shut down) your computer. Read about them all below, for they will come in handy at various times for different reasons. Sleep and Lock have buttons on the Start window; the other options are on a drop-down menu in that window.

Keyboard focus gets placed on the Start Search text box when you display the Start window with a press of the Windows Logo key. Tap the Right Arrow key to move off this text box and onto the Sleep button, then onto the Lock button, and finally onto the drop-down menu Arrow with the Shut Down option visible. The layout and content of the Start window are completely described in Chapter 5. For now, you only need to know about the Sleep and Lock buttons and the drop-down menu located along its bottom edge.

## Let your Computer Sleep

You are in the middle of a project, but want to go home for the day or out for the evening. You can continue the next day exactly where you left off. Here's how:

 1. Pop up the Start window.

 2. Activate the Sleep button to save your current work and to put your computer to bed, in a low-power state.

    Move off the Start Search text box and onto the Sleep button with one tap of the Right Arrow key, and then tap the Enter key to activate that button. Vista yawns and dozes off.

3. Typically, just press its hardware power button to wake up your computer when you are ready to get back to work. (However, your computer may wake up in a different manner: with a tap of any key, with a click of any mouse button, or when you open its lid.)

4. The logon screen, if enabled, appears with your User account locked. When you enter your password, you are exactly where you left off.

Here are more details about the Sleep option. All open documents and programs are saved in memory and that allows you to resume full-power operation within a few seconds. This option will pause your computer just like a CD or DVD; the computer stops and resumes operation immediately when you are ready to work.

Your computer may have a hardware Sleep button that you can press, or it may go to sleep when you close its lid. Its hardware lights may slowly flash or change color while asleep. Your computer may put itself to bed after a long period of inactivity. (Read your computer's documentation or go to the manufacturer's web site for the details.)

Put your computer to sleep if you don't plan to use it for several hours. Don't power it off! Very little battery power is consumed while your computer snoozes. Eventually, Vista will save any open documents and programs to your hard drive, remember the important information about those programs, and turn off the computer for you.

# Lock Your Computer

You power up your computer, pick your User account, type your password, and get to work. Hours later, you need a short break, but you don't want to close your open files and your programs. What to do? Lock your User account so others can't snoop or disturb your work. Here's how:

1. Pop up the Start window.

2. Activate its Lock button.

Move off the Start Search text box and onto this button with two taps of the Right Arrow key, and then tap the Enter key to activate that button. Vista locks your account and displays the logon screen.

3. Enter your password when you are ready to get back to work.

All is as it was before you took that needed break. (This option is available on both laptop and desktop computers.)

# More Quit Options

You may display a complete list of quit options. This menu includes all options so the Sleep and Lock options are repeated here. Here's how:

1. Pop up the Start window.

2. Move onto its drop-down menu.

   Move off the Start Search text box and onto this little arrow with three taps of the Right Arrow key.

3. Then either tap the Enter key to activate its Shut Down option, or tap the Down Arrow key to display the entire menu of options.

   Here are brief descriptions of these options.

### Shut Down Option

You don't need to shut down your computer routinely! You should shut down your computer when you don't want it to wake to run a scheduled task, when you don't plan to use your computer for several days, or when you want to unplug your computer.

Shut Down logs you off and then completely turns off your computer. Invoke this Option instead of the Log Off button when nobody else wishes to use the computer after you.

Wait for about 30 seconds so Vista can prepare for bedtime. The hard drive grinds, and Vista stirs, wrapping things up. You are informed of whether any programs or documents are still open and given a chance to close them. The final view on the computer display shows the Vista logo and shows a message that asserts it is safe to turn off the computer. (Many newer computers and displays turn themselves off.)

**Access Note:** A blind user can't read this information, for any voice/braille program is halted before this screen appears.

### RESTART OPTION

This option lets you restart your computer when a problem occurs--Vista gets cranky or application programs misbehave. (Often, you are asked to restart your computer when you have just installed software or hardware so new configuration settings can take effect.)

### *Log Off Option*

This option lets you exit your User account. Vista saves your work and your settings. The logon screen appears so another user can logon.

### *Switch User Option*

This option lets another user logon. Vista keeps your setup intact until you switch back.

### *Sleep Option*

The Sleep option on this menu works differently than the Sleep button in the Start window; it represents both Hybrid Sleep and Standard Sleep. This option automatically puts your computer into hybrid sleep when Hybrid Sleep is turned on. This option only puts your computer to sleep when Hybrid Sleep is turned off, or if your computer doesn't support Hybrid Sleep.

# Quit from the Desktop

You can bypass the Start window entirely and shut down while at the Desktop. Here are the details:

1. Close all program, document and folder windows.

2. Leap onto the Desktop with the Win + D key.

3. Tap the Alt + F4 key.

   A list of quit options appears.

4. You can tap the Esc key to change your mind and return to the Desktop.

5. Pick the desired option.

6. Wait for about 30 seconds so Vista can prepare for bedtime.

# Power Button Options

You can specify what should happen when you press the Power button or the Sleep button or when you close the lid on a portable computer. You can specify that behavior when on battery power or when plugged in. You have four options when you press the Power button or Close the lid: Do Nothing, Sleep, Hibernate, and Shut Down. You have only three options when you

press the Sleep button: Do Nothing, Sleep, or Hibernate. Follow these steps to adjust the behavior of the Power (or Sleep) button:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Power Options.

   A window filled with links appears.

3. Activate the link labeled Choose What the Power Buttons Do.

   Move onto this link with the Tab key, and press the SpaceBar key. (A press of the Enter key doesn't work although it should.)

4. Press the Tab key repeatedly to move onto the different combo boxes.

5. Move onto a combo box item with the Arrow keys to pick that item.

6. Move onto the Save Changes button and press the Enter key after you pick the desired options.

   You return to the Power Options window.

7. Press the Alt + F4 key to exit that window.

Now you can terminate a work session in style. Just press the power button, the Sleep button, or close the computer's lid to finish up. For example, my laptop goes to sleep when I close the lid and starts up as soon as I open the lid. I need only to press any key to be back at work.

You have another option akin to the Sleep option: Hibernation stores your work on the hard drive and also keeps it in temporary memory. This option requires more time to wake up your computer, but it has a big advantage over the Sleep option: your work remains protected even when a power failure occurs or when your battery power runs too low. By the way, the hibernation option consumes the least amount of power. (Read your computer's documentation or go to the manufacturer's website to find out whether your computer supports this option.)

**Remark:** You may need to open the computer's lid and also press the physical power button to resume where you left off. (Experiment, or read the documentation for your computer.)

Your desktop computer uses a small fraction of the power while asleep that it consumes when awake. Put your desktop computer to sleep to save a

significant amount of energy. Your mobile computer (laptop or notebook) typically uses 1 or 2 percent of battery power per hour while asleep. Vista automatically saves your work on the hard drive and turns off your mobile computer after a long period of idle time (specified in the sleep and hibernate settings of the power plan that you're using) to further limit the consumption of battery power.

**Remark:** With the Power Options, you can make Vista stay awake even when no activity occurs for a long period of time. You may want to do that on a desktop computer, but don't do that with a laptop computer running on battery--or else the battery will run low very quickly.

# Power Consumption Options

Vista lets you conserve battery power on your portable computer and save energy on your desktop computer. The prior topic explained how you could power off your computer. This topic describes the various ways you can save power.

The computer's display and hard disk consume most of the power. Vista can turn off the display after a specified period of inactivity, and Vista can put the computer to sleep after a longer period of inactivity. You can specify the time interval when on battery power or when plugged in. Return to the Power Options window and follow these steps:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Power Options.

   A window filled with links appears.

3. Activate the link labeled Choose when to Turn off the display.

   Move onto this link with the Tab key, and press the SpaceBar key. (A press of the Enter key doesn't work although it should.)

4. Press the Tab key repeatedly to move onto the different combo boxes.

5. Move onto a combo box time value with the Arrow keys to pick that duration.

6. Move onto the Save Changes button and press the Enter key after you pick the desired time intervals.

You return to the Power Options window.

7. Press the Alt + F4 key to exit that window.

Now, the display turns off when idle, and the computer goes to sleep when idle. Just press any key to reactivate the display and wake up the computer.

**Remark:** There are many other power options. You can ignore them unless you wish to customize the power consumption configuration further. Rely on the Reset buttons if you make a mess and want to restore the original power settings.

# CHAPTER 3
# DESKTOP WINDOW

Power up your computer; Vista starts and the Logon and the Welcome Center screens may appear. Your computer plays a melody when the Logon screen appears and eventually plays another melody when the Desktop screen appears--no music is heard if your speakers are off or disconnected. The Desktop is your main work area while in Vista. It's called the Desktop because you use it just as you use a real desk. You can place shortcuts for your favorite programs and documents on your Desktop for quick access. They're all there, right where you left them, whenever you fire up your computer. This chapter describes the layout of this window, discusses its keyboard navigation, and tells you about its icons.

## Window Layout

The initial Desktop window in Vista has, conceptually and visually, four distinct parts: a display area which fills most of the window, an icon or picture of a trashcan (located at the top left of the display area), a long vertical strip at the right edge of the window, and a long horizontal strip across the bottom edge of the window. The trashcan icon (called the Recycle Bin), the vertical strip (called the Sidebar), and the horizontal strip (called the Taskbar) are the only items that come standard on the Vista Desktop. The manufacturer of your computer may include more items on your Desktop.

Desktop is your home base and primary work area; it completely fills the computer screen and forms the visual framework for all activities. This chapter describes the Desktop real estate and explains its keyboard navigation.

# Display Area

The Display area, most of the Desktop window, is your workspace. You can personalize the Display area in three different ways.

# Desktop Appearance

By default, the Display area contains just a single item (the Recycle Bin icon), has a monotonous background, and shows an animated background when no computer activity occurs for a while. You may place five standard icons in the Display area, enliven its normal background, and change its animated background. Here are the details.

### Place Shortcuts There

You place shortcuts for documents, programs, and folders in the display area so you have quick access to them. There are five standard items in Vista, and you can place shortcuts for them in the Display area. Here are brief descriptions of these five items.

**Computer** opens an explorer window, which shows your computer's disk drives and other storage devices. **Control Panel** opens an explorer window, which shows Vista components and Vista settings. **Network** opens an explorer window, which shows all the computers on your local area network. **Recycle Bin** stores all of your trash--deleted files, folders, programs, etc. **User's Files--**identified as your logon name--opens a folder window, which shows your personal folders.

### Change the Background

You can replace the default Desktop background (wallpaper) in the Display area with a different motif. You may make any picture on your computer or on the Internet your desktop background. Move onto the picture; pop up its shortcut menu; and pick the "Set as Background" option.

### Change the Screen Saver

Programs called Screen Savers were invented to prevent "screen burn out" on older displays and to entertain users while their computers remained idle. They are no longer necessary, but they are kept around for their entertainment value.

Vista comes with ten screen savers, although your computer vendor may include others. You can replace the default screen saver with a different screen animation. Here are the steps to accomplish that:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Personalization.

3. Activate the Screen Saver link.

4. Pick the screen saver you want for your desktop, and then activate the OK button.

You may specify the time period before Vista runs the screen saver. You may interrupt the screen saver and get back to work at any time with a tap of any key. You may elect to have the Logon Screen appear when the screen saver disappears so other persons can't read what is on your screen.

### *Personalize Window*

These three tasks--place the standard shortcuts on the Desktop, change the Desktop wallpaper, change the Desktop screen saver--are performed in the same window. Follow these steps to reach that window:

1. Display the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick the Personalization item.

   A window filled with links appears.

3. Move onto the required link--Change Desktop Icons, Desktop Background, or Screen Saver--and press the Enter key.

4. Pick the desired option(s).

5. Pick the Close item on the File menu or press Alt + F4 when finished.

**Access Note:** You need sighted assistance to change the Desktop wallpaper, for all items are images without descriptive labels.

# Desktop Shortcuts

In addition to the five standard desktop shortcuts discussed earlier, you can place shortcuts for programs, and for personal items--your documents, folders, and favorite web pages--in the display area for quick and effortless access. Vista puts shortcuts for your personal items in parallel columns at the left of the display area. Every shortcut consists of an icon with a text

label beneath it. You may place as many or as few shortcuts in the display area as you wish. You may prefer a clean, uncluttered display area so you can quickly find needed items; or you may fill up the display area so all of your favorite items are immediately available to you.

**Access Note:** I put shortcuts for every document, program, and folder I need in the display area, which makes it very messy, cluttered, and busy. However, my screen reader doesn't care about the number of items or the visual clutter; if I tap the proper keys, I immediately reach the desired item. However, a mouse user may be overwhelmed by the sheer number of icons onscreen.

Documents, programs, and folders aren't really placed in the display area; only shortcuts for them are placed there. Shortcuts, created by Vista, are links to items and they tell Vista where to find them and what to do with them.

You may create a shortcut for any document, program, or folder in a few steps: find and move onto the item, pop up its shortcut menu, pick the Send option, and finally, pick Desktop (create shortcut). Vista puts a shortcut for that item in the display area. From then on, you may activate that shortcut to get to its item; you don't need to find that item again on your computer.

You may no longer want or need a shortcut and wish to free up its space in the display area. You can remove it: move onto the doomed shortcut, pop up its shortcut menu, and pick the Delete option. Vista removes that shortcut and neatly rearranges the rest. (Only the shortcut on the Desktop gets deleted; the original item--document, program, folder--remains intact.)

# Desktop Keys

You can use a Desktop shortcut only when you are at your Desktop. Sometimes, you may wish to immediately start a program or open a document or a folder even when you aren't at your Desktop. You can assign a key to a Desktop shortcut that lets you do this. Here are the steps to accomplish that:

1. Move onto the Desktop shortcut to be assigned a shortcut key.

2. Pop up its shortcut menu with the Shift + F10 key.

3. Pick its Properties option.

   A property sheet with five tab pages--General, Shortcut, Compatibility, Security, Details--appears.

4. Move onto its Shortcut tab page if necessary.

5. Move onto the Shortcut Key text box; type a single letter to be assigned as the shortcut letter and used with the Ctrl + alt keys.

   The Shortcut key box will display the word **None** until you select the key, and then the box will display Ctrl + Alt followed by the key you picked. You may not enter the ESC, ENTER, TAB, SPACE BAR, PRINT SCREEN, SHIFT, or BACKSPACE keys. Tap the Esc key if you mistype the key and start over.

6. Move onto the Run combo box and pick the desired window size-- Normal, Minimized, Maximized.

   This sets the size of the open window.

7. Finally, activate the OK button.

The shortcut key and window size are now defined for this Desktop shortcut. Just tap the Ctrl + Alt + Shortcut letter to activate the item linked to this Desktop shortcut. This shortcut key lets you activate the linked item wherever you are in Vista. Now, you never need to hunt for the actual item itself--just activate its Desktop shortcut or tap its shortcut key when you wish to access that item.

# Vertical Strip: Sidebar

Developers of software products add more and more features to outclass the competition and to convince you to buy their products instead of those from other manufacturers. Often you can't perform simple, basic tasks easily and quickly with that software because of its complexity. Microsoft has recognized this trend toward unnecessary complexity and has introduced mini-programs, called gadgets, to reverse this trend. For example, a weather gadget shows you the current weather conditions and does nothing else.

Vista comes with a bunch of gadgets, and you can download thousands more from the Internet. Gadgets are so useful, nifty, and fun, they are placed in a window on the Desktop for quick access. Gadgets and this window, called the Sidebar, are presented in the next chapter instead of here because they are so useful, and because they require more pages for a thorough description and explanation.

**Remark:** In Vista Service Pack 1, released on March 18, 2008, the Sidebar has keyboard focus when Vista starts up. Use the Win + D key to place keyboard focus on your Desktop.

# Horizontal Strip: Taskbar

This strip gives you access to vital parts of Vista no matter where you are in Vista or what you are doing. By default, it resides at the bottom of the Desktop window and stretches across the entire width of that window. It remains visible at all times--unless you hide it.

This strip is divided into four sections with different uses. The far left section is the Start Button. The rest of this strip has three parts: the left section is the Launch Area, the middle section is the Switch Area, and the right section is the Notification Area. This strip is chopped up conceptually and visually like this:

**Start ? Launch ? Switch ? Notification**

These four parts have different jobs and are used separately. This is why, although the horizontal strip seems solid, it is described and used as four separate pieces.

# The Start Button

The Start Button is the gateway to all of Vista and where you usually start out and stop your computer. The Start Button is located at the left end of the taskbar. It is a bright blue circle and sports the four-color Microsoft logo. You also press this button to get to all of your programs and to all of the quit options, which let you properly, log off or shut down Vista.

**Remark:** This button is represented as a green rectangle in XP with the word "start" to the right of its icon. Microsoft removed the word "start" from Vista.

# The Launch Area

Shortcuts for frequently used folders and programs live in the Launch Area, located just right of the Start button. These shortcuts let you quickly open their associated windows. (They're no different from shortcuts that you place on the Desktop.) By default, the Launch Area contains two handy buttons: **Show Desktop** and **Switch Between Windows**. Activate the **Show Desktop** button to temporarily hide all open windows and show your full desktop; activate this button again to return to your open windows as

you left them. Activate the **Switch Between Windows** button to switch between open windows via the Flip 3D feature in Vista.

**Remark:** Flip 3D doesn't function if your computer doesn't run Windows AERO. **Switch Between Windows** works like the Alt + Tab key in that situation.

After you launch Internet Explorer (IE), your web browser, a third button representing IE appears in the Launch Area. You may add or remove icons from the Launch Area. Here's how to add an item: Move onto a program in the All Programs list on the Start window, pop up its shortcut menu, and pick the Add to Quick Launch command. Its icon now resides in the Launch Area. To remove an item, move onto a button in the Launch Area, pop up its shortcut menu, and pick the Delete command. Its button disappears.

**Remark:** Continue to add buttons to the Quick Launch toolbar; it eventually runs out of room, and Vista starts to hide them. Vista includes a continuation button (>>) that you can activate to display a pop-up menu that shows the rest of the buttons.

You may remove the entire Launch Area from the Taskbar. Here's how: move onto the Start Button with the Tab key, pop up its shortcut menu, pick Properties, move onto the Toolbars tab page, and uncheck Quick Launch. The launch area disappears from the Taskbar. (Recheck Quick Launch to get it back.)

# The Switch Area

The section of the Taskbar called the Switch Area allows you to "switch" between open windows. It is empty until you open a window for a program, document or folder.

An open window places its business card, called a Button, in the Switch Area. Its button is a little framed rectangle that contains its icon on the left and its name on the right. A window places its button in the Switch Area for two reasons: so you know it is open even when it is completely covered up by other windows, and so you can switch to it and use it at any time--hence the name Switch Area.

You may open as many windows for programs, documents or folders as you like; this is called multi-tasking. Their buttons fill up the Switch Area left to right as you open them. Eventually there is no more room in the Switch Area for additional buttons. Then, Vista makes more room. It throws away button icons and cuts off button labels. (Note that hovering the mouse pointer over a disfigured button will reveal its whole label.)

Buttons for open windows in XP look similar, so users can easily forget which windows have what in them. This dilemma is nicely resolved in Vista. Every button in the switch area can show the contents of its window. Just hover the mouse pointer over a button and that button shows a Live Thumbnail--the first page of a document, the first picture in a slideshow, and so on.

The buttons in the Switch Area depart as you close their windows. When you close all windows, the Switch Area becomes empty.

## The Notification Area

The Notification Area, located at the far right end of the task bar, shows running programs that don't require open windows. Programs like the Clock and Volume Control live in the Notification Area (alias System Tray). Vista shows icons for active pieces of equipment here--the status of your network connection, your connection to your hand-held device, PCMCIA cards (flash memory card, scanner card, etc) inserted into your laptop computer, and your printer. Vista shows programs active in the background here--Windows Sidebar, Windows Clipboard, Windows Defender, and Windows Update Reminder to mention a few.

**Remark:** Microsoft calls this the Notification Area because notices about problems show up here. Microsoft also calls this area the System Tray because many icons for system components reside here.

This area fills up as more programs and equipment are started, and empties out when they are no longer in use. For example, a printer icon is displayed while a document prints, but it vanishes as soon as the print job is finished. This area stretches farther toward the left as it fills up, leaving less room for Switch Area buttons.

All the comments made so far about the Notification Area apply to Vista and to previous releases of Windows. The Notification Area in Vista has an added clean-up feature that reduces Notification Area overcrowding. Vista decides for you which icons are of no great concern and which icons are significant. The inconsequential icons are placed in the left section of the tray, and this section is concealed from view to free up needed Taskbar real estate. The important icons are placed in the right section of the tray, and this section is always displayed to allow access to its icons. The concealed part of the Notification Area, when present, is marked with a chevron button--a big left arrow button. A press or click of this button reveals the entire Notification Area.

**Remark:** You may find a dynamic Navigation Area confusing because a program button may disappear and reappear unexpectedly. You can turn off this behavior in the following way: move onto the Start button, pop up its shortcut menu, pick its Properties option, move onto the Notification tab page, and uncheck the Hide Inactive Icons check box. Now, for example, the button for Windows Sidebar remains visible in the Notification Area whenever you or Vista runs the Sidebar program.

# Window Navigation

You may consider the entire Desktop window divided into two distinct parts for use with the keyboard: the Taskbar composed of the Start Button, the Launch Area, the Switch Area and the Notification Area along the bottom of the window, and the display area, which comprises the rest of the window.

# Desktop Navigation

Which part of the Desktop window has keyboard focus after Vista starts depends on the programs that are loaded by Vista and in what order. However, there are keys that let you put the keyboard focus on the Desktop wherever you want.

The Tab key (or the F6 key) lets you move the keyboard focus onto the five parts of the Desktop. Repeatedly tap the Tab key to cycle through the Launch Area, Switch Area, Notification Area, display area, and another tap of the Tab key places the keyboard focus over the Start button. Repeatedly tap the Shift + Tab key to cycle in reverse order through the five Desktop pieces. (The Shift + F6 key doesn't work.)

Keyboard focus is placed on the leftmost item in the Launch, Switch and Notification Areas. The keyboard focus is placed over the icon that most recently possessed the keyboard focus in the display area.

Typically, the Tab and Shift + Tab keys cycle through items in opposite directions. This is true for the Desktop window and for dialog box windows as well. Use the Tab and Shift + Tab keys to move to a particular piece of the Desktop. Then, use the Arrow keys to move through items in that area. These keys always place the keyboard focus over an item. For example, you can't place the keyboard focus over a blank spot in the display area--it always moves onto an icon in this piece of the Desktop.

**Remark:** A mouse user right clicks in a blank part of an area of the Desktop window to pop up its shortcut menu. A keyboard user does this in three steps: Put the keyboard focus on the display area with the Tab key (or the

F6 key), tap the Ctrl + SpaceBar key to deselect the focused icon, tap the Shift + F10 key.

## Start Button Keys

The Win key or the Ctrl + Esc key open the Start window. The Esc key closes that window and leaves keyboard focus on the Start button. These sets of keys will work when the Taskbar is either visible or invisible (Recall that you can hide the Taskbar from view.)

You may tap the Alt + S key, and then tap the Esc key. This pair of keys works only when the Taskbar is visible. Alt + S opens the Start window and Esc closes that window. The keyboard focus stays over the Start button.

## Launch Area Keys

Shortcuts for files, folders, and programs reside in the Launch Area, and they are numbered left to right. You may immediately launch the associated item with a tap of Win + its number (only use the number key in the top row of the keyboard). For example, launch the item with the leftmost shortcut with the Win + 1 key, or launch the next item to its right with the win + 2 key. (You need to remember the position of a shortcut to launch it this way.)

**Remark:** You can ignore this feature if you wish. Instead, just tap the Tab key to reach the Launch Area, tap Arrow keys to reach the shortcut, and finally tap the Enter key to launch its associated item.

## Switch Area Keys

This area contains buttons for open windows. Activate a particular button to make its window the active window. Its button looks depressed (pushed in) when activated.

There are two ways to activate a button in the Switch Area: with the Arrow keys and with the Alt + Tab key. The activated button's window appears and becomes the active window. That is, its window moves to the top of the pile, and any windows that overlap it are pushed behind it.

Place the keyboard focus over the Switch Area. Tap Arrow keys to move left or right through the buttons in this area. Tap the Enter key when focus is over the desired button.

Alternatively, hold the Alt key and repeatedly tap the Tab key. This process cycles through the buttons in the Switch Area. Release the Alt key when

focus is over the desired button. (This is called the Flip Feature in Vista.)
Here is this procedure in more detail:

1. Hold the Alt key and tap the Tab key.

   Vista displays a band (narrow window) in the middle of the desktop that
   shows live thumbnails of all the open windows in the order in which they
   were opened.

2. Continue to hold the Alt key but release the Tab key.

   This window stays displayed.

3. Repeatedly tap the Tab key.

   The keyboard focus moves through the live thumbnails for the windows.

4. Release both keys when focus is over the desired window live thumbnail.
   (The name of the window appears centered above in the band.)

   This window is now the active window and is restored to its previous
   size and position on the computer display.

This is the recommended method to activate a window. Here are some of
the reasons why: a single tap of the Alt + Tab key immediately switches you
back to the most recently used program. Successive single taps of the Alt +
Tab key let you switch back and forth between two different programs. You
can tap the Alt + Tab key at any time to switch programs, and you don't
have to be at the Desktop to do this.

New to Vista is a Flip 3D Feature. Flip 3D displays your open windows in a
stack. There is one open window at the top of the stack. You flip through the
stack to open other windows. Here are the steps to flip through the stacked
windows:

1. Tap the Win + Tab key to activate Flip 3D.

2. Hold the Win key and repeatedly tap the Tab key.

   You cycle through the stack of windows.

3. Release the Win key to display the topmost window in the stack.

Another way to use Flip 3D is to tap Ctrl + Win + Tab to keep Flip 3D
active. You can then press the Tab key by itself to cycle through the stack of

windows. Tap the Esc key to close Flip 3D. You can also open Flip 3D with the Switch Between Windows button in the Launch Area.)

# Notification Area Keys

Tap the Win + B key to place keyboard focus over the leftmost icon in the Notification Area. Alternatively, repeatedly tap the Tab key to reach the Notification Area. Use the Arrow keys to reach the desired icon; tap the Enter key to open its associated item.

# Display Area Keys

Tap the Win + D key to place keyboard focus on the Desktop over the icon that most recently possessed the keyboard focus. Tap the Win + D key again. You place keyboard focus on the Start button. Around and around you go with more taps of this key.

Tap the Win + M key to place keyboard focus over the icon that most recently possessed the keyboard focus in the display area and minimize all open windows in the Switch Area. A tap of the Win + Shift + M key restores all of them; that is, they are open again on the Desktop.

# Display Area Navigation

You can place frequently used programs, documents and folders on your Vista Desktop just as you can on top of your real desk. The icons for Desktop items are arranged in columns near the left edge of the display area. Icons that can't fit in the far left column are placed in the next column. The display area fills up with icons from left to right in columns.

Place the keyboard focus over the display area with the Tab key or a tap of the Win + D key. Then the keyboard focus moves onto the item in the display area that most recently possessed the keyboard focus.

Navigate to the desired item. There are two ways to accomplish this: use Arrow keys or Letter keys. Here are the details.

# The Arrow Key Method

You can move the keyboard focus onto a specific item with the four Arrow keys. Move left and right to the next column; move up and down to the next row.

# The Letter Key Method

You can move the keyboard focus onto a specific item with the Letter keys. Merely type the initial part of the item's label. For example, type "C" to reach the Computer item or "D" to reach the Documents item. Activate the desired item with the Enter key.

**Remark:** A tap of a Letter key that matches no label just beeps. Repeated taps of the same Letter key cycle through all the labels that begin with that letter, and eventually return to the initial item with that letter.

Use the Arrow key method when you are unfamiliar with the item labels. Rely on the Letter key method after you familiarize yourself with them, as this is usually a quicker way to jump to the desired item.

# Launch Area Navigation

This area, when present, contains buttons for frequently used programs. You activate a button to start its program. Here are the details:

Place focus on the Start button with a tap of the Win key followed by a tap of the Esc key. Press the Tab key to move onto the Launch area. Then tap the Arrow keys to move left or right through the buttons in this area. Tap the Enter key when focus is over the desired button, and its program starts.

# Switch Area Navigation

This area contains buttons for open windows. Activate a particular button to make its window the active window.

As discussed earlier, there are two different ways to activate a button in the Switch Area: with the Arrow keys and with the Alt + Tab key. The activated button's window appears and becomes the active window. That is, its window moves to the top of the pile, and any windows that overlap it are pushed behind it.

# Notification Area Navigation

This area contains buttons for programs that run in the background. Activate a particular button to gain access to its program.

Place the keyboard focus over the Notification Area with repeated taps of the Tab key or a single tap of the Win + B key. Then tap the Arrow keys to

move left or right through the buttons in this area. Tap the Enter key when over the desired button. Its program is now accessible.

# Window Keys

The parts of the Desktop window possess their own navigation keys. They are presented by window component.

## Desktop Keys

Tab or F6

> These keys move the keyboard focus through Desktop components in this order: Start button, Launch Area, Switch Area, Notification Area, and Display Area. Keyboard focus is placed on the leftmost item in the Launch, Switch and Notification Areas. The keyboard focus is placed over the icon that most recently possessed the keyboard focus in the display area. (Shift + Tab moves in reverse order; Shift + F6 doesn't work.)

Win + D

> This combination moves focus between the Desktop and the Start button.

## Display Area Keys

Win + M

> This key combination minimizes all open windows on the Desktop. The keyboard focus is placed over the icon in the Display Area that most recently possessed the keyboard focus.

Shift + Win + M

> This key combination expands all windows on the Desktop. The keyboard focus is placed over the icon in the Display Area that most recently possessed the keyboard focus.

Arrow

> This key moves the keyboard focus to the next item in the direction of the Arrow.

Letter

   This key moves the keyboard focus to the next item with a label that
   begins with that letter.

Enter

   Activates the item with the keyboard focus; equivalent to a double
   mouse click.

F2

   Lets you rename the item with the keyboard focus. A bold rectangle
   appears around the item's label creating a text box in which you type a
   new label. Tap the Enter key to accept the new label or tap the Esc key
   to cancel this process and keep the current label.

Shift + F10 or Context

   These keys display the shortcut/context menu for the item with the
   keyboard focus.

# Sidebar Keys

Win + SpaceBar

   This combination brings all gadgets to the front and selects Sidebar.

Win + D

   This combination moves focus onto the Desktop and deselects the
   Sidebar.

Win + G

   This combination moves through Sidebar gadgets.

Tab

   This key moves through Sidebar controls.

# Start Button Keys

Win with Esc or Ctrl + Esc; close with Esc

Places keyboard focus over the Start button. Win or Ctrl + Esc opens the Start Window; Esc closes it.

# Launch Area Keys

Left/Right Arrow

These keys move the keyboard focus to the next button in the direction of the Arrow key. Enter presses the button with the keyboard focus and its program is launched.

Win + Number (on top row)

This combination launches the item at that location in the launch area.

Win + M

These keys work like the Show Desktop button, and minimize all open windows. The keyboard focus is placed over the icon in the Display Area that most recently possessed the keyboard focus.

# Switch Area Keys

Left/Right Arrow

These keys move the keyboard focus to the next button in the direction of the Arrow key. Enter presses the button with the keyboard focus; its program and window are activated.

Win + T

This combination moves the focus through the programs on the Taskbar.

Alt + Tab (Flip) or Win + Tab (Flip 3-D)

These keys activate the most recently used program window. Hold down either the Alt or Win key and repeatedly tap the Tab key to cycle through all program windows. Release the Alt or Win key when you reach the program window you wish to open.

Alt + Esc

These keys activate the most recently used window--program, document, dialog box, etc. Hold down the Alt key and repeatedly tap the Esc key to

cycle through all windows, not just program windows. Release the Alt key when you reach the window you wish to open.

**Remark:** The Alt + Tab key just cycles through primary windows. It doesn't activate them as it works; it only activates the last primary window visited. However, the Alt + Esc key cycles through all minimized windows and activates them in succession--often a slow process if many secondary windows are open.

## Notification Area Keys

Win + B

This combination places keyboard focus over the leftmost icon in the Notification Area.

Left/Right Arrow

These keys move the keyboard focus to the next button in the direction of the Arrow key. Enter presses the button with the keyboard focus; its program is activated.

# CHAPTER 4
# GADGET WINDOW

Gadgets are customizable mini-programs that display continuously updated information from the Internet--current weather conditions anywhere, current news headlines, and so on. Learn about them, and you will love to use them! They make you an active participant in the global community of computer users and give you immediate access to local and worldly events.

The two windows, Sidebar and Gadget Gallery, let you work with gadgets. This chapter describes the layout and navigation of these two windows and tells you the best ways to interact with them. You also learn various ways to manhandle individual gadgets--add or delete them from the Sidebar window, get more of them off the Internet, and put them onto the Gadget Gallery window. Most importantly, you get to try out a couple of fun gadgets.

## Sidebar Program

The program, Windows Sidebar, resides in the Accessories folder on the All Programs list. This program is automatically started by Vista when you turn

on your computer. Vista places the Sidebar window on the Desktop at its right edge. This window has keyboard focus; you need to press Win + D to move keyboard focus onto the Display area.

Vista places a button for the Sidebar program in the Notification Area. This button may disappear and reappear unexpectedly. You can turn off this behavior as follows: move onto the Start button, pop up its shortcut menu, pick its Properties option, move onto the Notification tab page, and uncheck the Hide Inactive Icons check box. Now, the button for Windows Sidebar stays visible in the Notification Area whenever you or Vista runs the Sidebar program.

You may turn off the Sidebar program and banish its window from the Desktop. A dialog box, Windows Sidebar Properties, resides in the Control Panel (while in classic view). In this dialog box, you tell Vista whether and where the Sidebar window should appear on the Desktop. The two check boxes, Start Sidebar When Windows Starts and Sidebar Is Always on Top of Other Windows, are checked by default. This means that the window for the Sidebar program always appears when Vista starts up and that its window stays in front of other windows so it remains visible at all times--just like the Taskbar. Uncheck both of these check boxes if you don't want the window for Sidebar to take up Desktop real estate until you need it. Then, you can launch the Sidebar program yourself from the Accessories folder on the All Programs list or from the Start Search text box on the Start window--just type sidebar into the Start Search text box and pick the Sidebar program from the list of search results.

# Sidebar Window

A vertical strip, a window about two inches wide, called the Sidebar appears when the Sidebar program starts. This narrow, tall window abuts the right edge of the Desktop and holds, by default, three gadgets that come standard with Vista. An analog clock with hour and minute hands, displays the current time for any time zone you specify. (The clock in the Notification Area displays numbers and usually shows your local time.) Slide Show displays a continuous slide show of various scenes from your Pictures folder. Feed Headlines shows you recent headlines from the news service you specify.

You may place more gadgets on the Sidebar window. For example, you may put a weather gadget there that shows the weather anywhere you wish and check the temperature and daily forecast there whenever you like. Vista comes with a handful of gadgets, and you can get thousands more off the Internet free.

You may rely on a pair of keys, Win + D and Win + SpaceBar, to move between the Desktop window and the Sidebar window. A tap of the Win + SpaceBar key puts keyboard focus on the Sidebar window. More precisely, it places keyboard focus over the Add Gadget button at the top of the Sidebar window; this button looks like a Plus Sign to signify add another gadget to this window. A tap of the Win + D key puts the keyboard focus back on the Desktop. Rely on these two keys to switch between the Sidebar window and the Desktop window.

A tap of the Win + SpaceBar key while anywhere within the Sidebar window puts keyboard focus back over the Add Gadget button at the top of the window; that's a handy reference point in this window. A tap of the Win + SpaceBar key behaves weirdly when the Sidebar program hasn't been launched. (It acts like a tap of the SpaceBar key or as a tap of the Enter key--messy indeed.)

# Window Layout

This window has a simple layout. There's a plus sign, the Add Gadget button, at the top of the window. Gadgets are listed vertically in a single column below the plus sign. Add another gadget to the window, and it appears at the top of the list and the other gadgets are moved down the list.

# Window Navigation

As mentioned, Win + SpaceBar places keyboard focus on the Add Gadget button at the top of the window. Win + G moves keyboard focus downward through the vertical list of gadgets. (Shift + Win + G moves keyboard focus upward through the vertical list of gadgets.) You can press Win + SpaceBar followed by Win + G to place keyboard focus on the top gadget in the vertical list of gadgets.

Use the Tab key (not the Enter key) while over a gadget to activate that gadget, then many different scenarios are possible. Typically, the gadget goes onto the Internet and retrieves the required information.

**Access Note:** A gadget launches the Internet Explorer program, moves onto a web page, and retrieves its current data. This may take a few moments (or much longer with a dial up connection). A screen reader may fail to announce the progress and only announce the results.

Example 1: Move onto the Clock gadget and tap the Tab key. The clock displays the current time in the specified zone, and a screen reader will announce the time.

Example 2: Move onto the Weather gadget and tap the Tab key. It displays the current temperature in the specified locale, and a screen reader will announce that information. Activate a link to read the weather forecast for that day. A weather gadget shows pretty pictures with the current weather conditions--a cloudy day shows a dark sky and clouds and a sunny day shows a bright sun. The pictures change as the weather conditions change.

**Remark:** By default, weather for Redmond, Washington is displayed because Microsoft Corporation has its headquarters there. You can change the locale to your hometown or any other place.

A gadget is a mini-program, and you must learn how to interact with it. For instance, I love the weather so I am fond of the Weather gadget. It brings me to a web page on the Internet and shows the current temperature and has links for daily weather forecasts. It lets me show the temperature either in degrees Fahrenheit or Centigrade. A weather page often has tables that show current and future weather conditions.

A gadget lacks help topics, so you are on your own, and you must play around with it until you figure out how it works. Usually, this is not a problem, for a gadget is a mini-program with few features.

# Window Control

You may want to close the Sidebar window temporarily to free up Desktop space, and you may wish to open it again later on. Different shortcut menus let you close, open, and exit the Sidebar window.

Users who have big monitors usually keep the Sidebar always visible. Those with small monitors often find it a waste of valuable Desktop space and tell Vista not to display it upon startup. Users with screen readers don't care either way; users with screen magnifiers may find it visually confusing.

# Close Window

You can close the Sidebar window at any time, but leave the Sidebar program active, and leave its icon in the Notification Area. Follow these steps to close the Sidebar window temporarily:

1. Move onto the Sidebar window with the Win + SpaceBar key.

   Its plus sign, the Add gadget button, is selected.

2. Pop up the shortcut menu for the Sidebar window with the Shift + F10 key.

3. Move onto the Close item and tap the Enter key.

   The Sidebar window vanishes.

4. Move onto the Desktop with the Win + D key.

# Open Window

You may show the Sidebar window again at any time. Follow these steps to reopen the Sidebar window:

1. Move onto the Sidebar icon in the Notification Area with the Win + B and Arrow keys.

2. Pop up its shortcut menu with the Shift + F10 key.

3. Pick its Open item at the top of the menu.

This window reappears on the right side of the Desktop window.

**Access Note:** There's a quicker way to reopen the Sidebar Window. Just tap the Win + SpaceBar key. You were introduced to the shortcut menu method because you need that menu when you wish to exit the Sidebar program and all gadget programs.

# Exit Window

Recall that the Sidebar and all gadgets are programs that consume computer resources just like bigger programs. You can temporarily exit all of these programs and free up computer resources whenever you believe you need them. Follow these steps to exit the Sidebar window and all gadgets:

1. Move onto the Sidebar icon in the Notification Area with the Win + B and Arrow keys.

2. Pop up its shortcut menu with the Shift + F10 key.

3. Pick its Exit item.

Now, the Sidebar window closes, the Sidebar program closes, and all gadget programs are closed. In addition, the icon for the Sidebar program in the Notification Area goes away; thus, you must activate the Windows Sidebar program in the Accessories folder on the All Programs list to get the Sidebar window and its gadgets back.

# Banish Window

You temporarily close the Sidebar window and all its gadgets when you exit that window, as just described. However, the next time you turn on your computer, the Sidebar and its gadgets are back. You may get rid of them on a more permanent basis if you don't need them or if you want to reclaim valuable Desktop real estate.

  1. Pop up the Windows Sidebar Properties Dialog box that resides in Control Panel (while in classic view).

  2. Uncheck its check box: Start Sidebar when Windows Starts.

  3. Pick the OK button.

Good bye Sidebar. You may manually get it back whenever you want. Merely launch the Windows Sidebar program located in the Accessories folder on the All Programs list. You have access to the Sidebar and its gadgets until you exit its window or turn off your computer.

# Gadget Gallery Window

A window, called the Gadget Gallery, shows all the gadgets (alias mini programs) installed on your computer. If you get more gadgets off the Internet, then they appear in this window. The gadgets in this window remain inactive and unusable until you place them onto the Sidebar window.

Follow these steps to display this window:

  1. Move onto the Sidebar window with the Win + SpaceBar key.

    The plus sign at the top of this window has keyboard focus.

  2. Display the Gadget Gallery window with the Enter key.

    This window appears in the middle of the Desktop.

# Window Layout

This window shows all the gadgets installed on your computer. Here are its parts in brief:

Its top row shows the Close Window button. Rely on the Alt + F4 key to activate that button.

The next row has Left/Right Arrows on the left. Rely on the Alt + Left/Right Arrows instead of these two Arrow buttons to move through previously visited web pages. A Search All Gadgets with a split button (text box and drop-down menu) is on the right.

Next comes a listing of the gadgets installed on your computer. Initially Vista just has two rows of gadgets from Microsoft:

**Calendar, Clock, Contacts, CPU Meter, Currency, Feed Headlines**

**Notes, Picture Puzzle, Slide Show, Stocks, Weather**.

The bottom row has a Show Details button on the left and a Get More Gadgets link on the right. Show Details displays a brief description of the selected gadget. Get More Gadgets Online has Vista visit the Microsoft Gadgets Web page. This page offers information about available gadgets and instructions on how to download them.

# Window Navigation

The top leftmost gadget in the list has keyboard focus when the Gadget Gallery window opens. Arrows move through list items; Home and End keys move to the top leftmost and the bottom rightmost gadget, respectively, in the list. Taps of the Tab key move you through the Gallery window in this order: Show Details, Get More Gadgets Online, Search All Gadgets, Search/Split Button (See other options), and a Gadget on the Gadget List.

# Gadget Control

You may search for gadgets on your computer and place them onto the Sidebar window so you can use them. You may find gadgets on the Internet and install them onto your computer, and you may uninstall them as well. These four tasks are performed while in the Gadget Gallery window. All other tasks with gadgets are carried out while in the Sidebar window.

# Search Gadgets

Vista comes with 11 gadgets from Microsoft Corporation, and you may get hundreds more off the Internet. You can easily browse through the gadgets installed on your computer via the Gadget Gallery window when you have

only a modest number. You should search through your gadgets when there are too many to browse. Here's how you do that:

1. Display the Gadget Gallery window with the Win + SpaceBar and Enter keys.

2. Move onto the Search All Gadgets text box with the Tab key.

3. Type the name of the gadget you want to find in this text box.

   Don't tap the Enter key after you type your search text because a progressive search occurs with every character you type; that is, Vista immediately matches your currently typed text against the contents of your computer.

4. Move onto the See Other Options drop-down menu with the Tab key.

To restrict your search by time, pick the Recently Installed Gadgets item. It limits the search to gadgets you have installed in the past 30 days. To restrict your search by source, pick a gadget vendor from the list below the Recently Installed Gadgets item.

## Add Gadgets

As mentioned, there are three gadgets on the Sidebar window by default. You may quickly add others. Here's how you do that:

1. Display the Gadget Gallery window with the Win + SpaceBar and Enter keys.

2. Move onto the desired gadget with the Arrow keys.

3. Add the gadget with the Enter key or pick the Add option on its shortcut menu.

   A copy of that gadget gets placed onto the Sidebar window before the other gadgets--it becomes the top gadget in the vertical list of gadgets-- and has keyboard focus. That gadget immediately goes to work and retrieves needed data off the Internet for you--the current time, the current weather conditions, or whatever.

4. Move back onto the Gadget Gallery window with the Alt + Tab key.

5. Add another gadget to the Sidebar window or close the Gadget Gallery window with the Alt + F4 key.

You may place multiple instances of the same gadget on the Sidebar window. For example, you can place multiple clock gadgets on the Sidebar window and have them show times in different parts of the world.

**Access Note:** Microsoft only tells a screen reader the gadget name as you move through them with the Win + G key; it doesn't give any other data. Use the Tab key to read more about the gadget.

# Uninstall Gadgets

As mentioned, gadgets are mini-programs installed on your computer. All of them appear in the Gadget Gallery window. You may no longer want or need certain gadgets, and you are free to remove them (uninstall them) from your computer. Here's how you do that:

1. Display the Gadget Gallery window with the Win + SpaceBar and Enter keys.

2. Move onto the doomed gadget with the Arrow keys.

3. Pop up its shortcut menu with the Shift + F10 key and pick its Uninstall option.

   That program no longer lives on your computer and doesn't appear on the Gadget Gallery window or on the Sidebar window.

4. Move back onto the Gadget Gallery window with the Alt + Tab key.

5. Uninstall another gadget from your computer or close the Gadget Gallery window with the Alt + F4 key.

You are able to re-install gadgets quickly that come with Vista:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Display the Windows Sidebar Properties Dialog box.

3. Activate the button Restore gadgets installed with Windows.

4. Press the OK button.

The restore button is unavailable until you remove a gadget that came with Vista. This button doesn't restore gadgets you installed from the Internet. You must get them off the Internet again.

# Get Gadgets

You may get free gadgets off the Internet and install them on your computer. There's a Get More Gadgets Online link in the Gadget Gallery window that brings you to a Microsoft web page full of gadgets from third party developers. That web page is visually complicated and difficult to navigate by a screen reader user, so get sighted assistance.

# Close Gadgets

You can put many different gadgets as well as multiples of the same gadget on the Sidebar window. You may decide that various gadgets or instances of gadgets are no longer wanted or needed there. You can remove them from the Sidebar window; however, they remain installed on your computer, and you can put them back at any time. Follow these few steps to remove gadgets from the Sidebar window:

1. Move onto the Sidebar window with the Win + SpaceBar key.

2. Move onto the doomed gadget with the Win + G key.

3. Close the gadget with the Alt + F4 key or pick the Close option on its shortcut menu.

   That gadget no longer resides on the Sidebar Window, but remains in the Gadget Gallery. Close more gadgets if you wish.

**Remark:** Avoid the Alt + F4 key while on the Sidebar window, for it often closes gadgets unexpectedly.

# Customize Gadgets

Often you are able to customize the operation of a gadget to meet your personal needs. Consider the Clock gadget. You may adjust it in a few different ways with its Settings dialog box. Give it a name--Local Time or London Time; the name appears on the clock face. Specify a time zone--Local Time or London Time; the clock face shows that time. You can even check the Show the Second Hand check box so the clock face has a moving red second hand.

Many gadgets show a Close button (a red X) and show an Option button (a wrench icon) in the upper-right corner of their view areas. These buttons aren't accessible via the keyboard, but equivalent commands are available on their shortcut menus. Follow these steps to check for gadget Options:

1. Move onto the Sidebar window with the Win + SpaceBar key.

2. Move onto a gadget with the Win + G key.

3. Pop up its shortcut menu with the Shift + F10 key.

4. Move through its items with the Arrow keys to the Options item.

5. Pick that item when available.

   A dialog box, property sheet (multi-page dialog box), or web page appears.

6. Review its items and make any desired or necessary adjustments.

Now that gadget meets your specified requirements.

**Access Note:** The displayed window can be either a dialog box or a Web page. A screen reader user needs to turn Web Browse off to access controls in a dialog box; they aren't read otherwise.

# Detach Gadgets

You may enjoy a few gadgets but don't otherwise need the Sidebar window. You are able to place them on the Desktop and then dispense with the Sidebar window. Follow these steps to detach gadgets from the Sidebar window and place them on the Desktop.

1. Move onto the Sidebar window with the Win + SpaceBar key.

2. Move onto the coveted gadget with the Win + G key.

3. Pop up its shortcut menu with the Shift + F10 key.

4. Pick its Detach option.

That gadget no longer resides on the Sidebar Window; instead, it lives on the Desktop. Detach and move more gadgets if you wish.

**Access Note:** You may prefer to leave gadgets on the Sidebar window so navigation with the Tab key works as usual on the Desktop and doesn't take you to unexpected view areas in gadgets.

# Windows Logo Key Summary

The standard computer keyboard has two keys, which show the Windows Logo. You may rely on either key to perform the actions listed below.

There are two Alt keys; they are adjacent to the SpaceBar key. Windows Logo keys are adjacent to the Alt keys. Thus, move two keys left or right of the SpaceBar to reach a Windows Logo key.

The table below employs two conventions. A plus between keys means you hold down the Windows Logo key and then press the other key or keys. Release all keys. A semicolon between keys means you press and release them in succession.

Windows Logo Key; Windows Logo key

 Open the Start window; close the Start window

Windows Logo key; Esc key; Tab key

 Open the Start window; close the Start window and leave keyboard focus on the Start button; move onto the various parts of the Desktop

Windows logo key + B; Arrow keys; Enter key

 Move onto the Notification Area; move through its items; activate the selected item.

Windows logo key + D; Windows logo key + D

 Move onto the Desktop; move onto the Start button or active window

Windows logo key + E; Alt + F4

 Open the explorer window for Computer; close this window

Windows logo key + F; Alt + F4

 Open the explorer window for Search; close this window

Windows logo key + CTRL + F; Alt + F4

 Open the explorer window for Find Computers (only works when on a network); close this window

Windows logo key + F1; Alt + F4

 Display Windows Help and Support; close this window

Windows logo key + SPACEBAR; Windows Logo key + D

Move onto the Windows Sidebar and Bring all gadgets to the front; move off the Sidebar and onto the Desktop (Don't use Alt + F4!)

Windows logo key + G

Cycle through Sidebar gadgets when on the Sidebar

Windows logo key + L

Display Windows Logon and Lock your computer or Switch User

Windows logo key + M

Minimize all windows and Move onto the Desktop

Windows logo key + SHIFT + M

Restore minimized windows on the desktop

Windows logo key + R; Alt + F4

Open the dialog box for the Run command; close this window

Windows logo key + T

Cycle through the programs in the Switch Area of the Taskbar

Windows logo key + TAB

Cycle through programs on the Taskbar with Windows Flip 3-D

Windows logo key + U; Alt + F4

Open the Ease of Access Center; close this window

Windows logo key + X; Alt + F4

Open the Windows Mobility Center; close this window

Windows Logo key + BREAK or Windows logo key + PAUSE; Alt + F4

Display the System Properties dialog box; close this window

Windows logo key + Any number key (on top row)

Opens the Quick Launch shortcut with that number--Windows logo key + 1 activates the leftmost shortcut, Windows logo key + 2 activates the next shortcut, and so on.

# CHAPTER 5
# START WINDOW

Vista provides you with a window where you can start programs, run commands, search for files and folders and where you can turn off your computer. You access this window via the Start button located at the left end of the Taskbar. Its parts are organized more efficiently than in XP, and they give you quicker access to your files, folders, and programs. This chapter describes the layout of this window, discusses its keyboard navigation, and presents its most useful options.

You can tap either Windows key or tap the Ctrl + Esc key combination to display this window. It pops up near the left edge of your display and just above the Start button. Tap the Esc key when finished to close it.

## Start Window Layout

In earlier versions of Windows, the Start window just contained a menu. In Vista, it has a more useful layout. It has two vertical panes-- think of them as two vertical lists side by side. Both lists are divided visually into three rectangles--top, middle, and bottom.

**Remark:** Die-hard XP users may long for the classic Start window, and they may revert to the old window layout and content. However, that will make the Start Search text box go away with a great loss of new functionality and bring back cascading menus.

# The Left Pane

The top rectangle just has two items: the name of your current web browser and the name of your current e-mail program. If you pick different programs, then these names change.

The middle rectangle lists commonly used programs and the programs you have used most recently. Commonly used programs include those that come with Vista and those included by your computer's manufacturer. If you run a program, then Vista temporarily places its name in this rectangle for ready access the next time you need it. As a result, the list of programs in this rectangle changes as you work, and your list most likely will look different

from that of family members, friends, and coworkers. Users who like to work in the Start window can permanently place favorite programs, documents and folders in the middle rectangle of the left pane for quick access as described later in this chapter.

The bottom rectangle consists of a single button labeled **All Programs**, which displays a list of your programs. Tap the Up Arrow key while on the Start Search text box (below this pane) to move onto the **All Programs** button, and tap the Enter key to activate that button. A list of your programs appears in the left pane and replaces the items usually listed there. This list has two parts: a list of individual programs in alphabetical order at the top, and a list of folders in alphabetical order at the bottom. (Program Icons are next to programs and Folder Icons are next to folders.)

The **All Programs** button becomes the **Back** button; activate this button to restore the left pane. (Move onto it with vertical Arrow keys and press the Enter key.)

If the Back button is present, one press of the Esc key places keyboard focus in the Search box below the left pane. Press the Esc key again to close the Start window and place keyboard focus on the Start button.

Rely on vertical Arrow keys to move through your list of programs, or type a few letters to jump onto an item immediately that begins with those letters. As mentioned, you encounter individual programs at the top of the list and folders filled with programs at the bottom of the list.

Folders group like programs and shorten the **All Programs** list. For example, the folder labeled Accessories contains a bunch of little programs bundled with Vista--the Calculator program, the WordPad program, and so on. The folder labeled Games contains the games installed on your computer.

A folder appears as closed or as expanded. A folder only shows its folder name when closed and shows its folder name and all its programs below its folder name when expanded. Press the Enter key while on a folder to expand or close that folder. (This is nonstandard keyboard behavior. Usually, a press of the Right Arrow key expands an item, and a press of the Left Arrow key closes an item.)

**Access Note:** A screen reader should say Closed or Expanded when you move onto a folder name in the list.

Move onto a program near the top of the list and tap the Enter key to start that program. The window for the program opens; the Start window closes. Rely on the Alt + F4 key to close the program when finished.

Move onto a folder near the bottom of the list and tap the Enter key to expand that folder. Now move onto one of its programs and, again, tap the Enter key to start that program. For example, display the All Programs list, move onto the Accessories folder, tap the Enter key to expand that folder and finally move onto the Calculator program and tap the Enter key. The program window for the Calculator opens, and the Start window closes. (Tap the Alt + F4 key to close the Calculator program.)

# Its Start Search Text Box

You may have thousands of personal files on your computer--perhaps thousands of research articles or thousands of song titles. Microsoft rethought how best to find stuff on a very full hard drive. The old XP way has been replaced with a more intuitive way. Moreover, Vista, in its spare time, creates an index of the information in your personal folder and its subfolders. So, you can type a few words in the Start Search text box and find all documents, e-mails, favorite web pages, song titles, and so on, which contain that text. Searches in Vista are faster and more flexible and comprehensive than those in XP.

You no longer need to remember where you put an important document or e-mail, and you no longer need to use complicated path commands to reach a handy command or program. You may rely on the Start Search text box to find whatever lurks within your computer. The next few subtopics tell you how you can browse through your computer with this text box and what you can search for. (Chapter 10 revisits these topics and tells you about two other search methods.)

**Remark:** Path commands occasionally still lurk in the background in Vista. They appear when you use a Browse button or place keyboard focus on the Address Bar in a window.

# Search for Files

Pop up the Start window; the **Start Search** text box has keyboard focus. You can immediately type text in that box. The text can include whole words and beginnings of words. For example, the text "cat" will match the two words *cat* **and** *cat*alog in file names and files.

Wait a few moments. Vista searches for both file names and files, which contain your text. Don't tap the Enter key after you type your search text. A progressive search occurs with every character you type and narrows the search results; that is, Vista immediately matches your currently typed text against the contents of your computer. Results of the search (if any) are displayed in the left pane.

Press the Tab key three times to reach the top item in the list. Browse through the list of search results with the vertical Arrow keys. The keys Home and End place you at the top and at the bottom of the list. Press the Enter key when over an item you would like to open. Vista closes the Start Window and opens a window for that file or program. (More about the list of results follows.)

Tap the Esc key if you don't find what you want; you get rid of the Search Results list and bring back the left pane. You are left in the Start Search text box where you can try a different search.

# Search for Commands

Because you may quickly search for any command like **run**, Vista leaves it off the Start Window. Just type any command into the Start Search text box just as any other text. Then, there it is in the list of results--ready for action. For example, type the word "run" in the Start Search text box and wait a moment. That command and, perhaps, other items with *run* in their file names appear in the list of results. Move onto the **run** command and tap the Enter key to invoke that command.

# Search for Windows

You may search for a bit of text or a command as discussed, but you may also search for a folder window or an explorer window. Just type a recognizable window name into the Start Search text box just as any other text. Then, there it is in the list of results ready to be opened. For example, type the word **documents** or the two words **control panel** in the Start Search text box and wait a moment; Documents or Control Panel appears at the top of the list of results and has keyboard focus. Tap the Enter key to open that window.

# Search Results List

The list of search results is divided into four groups. Which groups show up in the list of results will depend upon the search text you enter. The group labeled Programs shows computer programs that contain your search text within their names. The group labeled Files shows files that contain your search text within their names or within their contents. The group labeled Favorites and History shows website addresses in your browser's history list that contain your search text within their addresses. The group labeled Communications shows e-mail messages that contain your search text within their subject lines or anywhere within their messages.

For example, type the word "control" into the Start Search text box; Vista finds, on my computer, three groups of results: Programs, Files and Communications.

As mentioned before, press the Tab key three times to reach the top item in the list. Browse through the list of search results with the vertical Arrow keys. The keys Home and End place you at the top and at the bottom of the list.

There are two commands below the list that let you extend your search. Rely on the Search Everywhere command to open the Search window (discussed in Chapter 10). This window lets you find all files that are indexed on your computer that contain your search term. Rely on this command when you don't find the sought after file. This command gets keyboard focus when there are no search results. The other command **Search the Internet** opens your web browser and automatically performs a search on the Internet for the term you typed in the Start Search box.

# The Right Pane

The right pane lets you access important Vista files, folders, computer settings, and Vista features. Its top rectangle has five Items: Your Personal Folder (the name of the active User Account), Documents, Pictures, Music, and Games. Its middle rectangle also has five items: Search, Recent Items, Computer, Network, and Connect To.

**Remark:** The folder names Documents, Pictures, Music, Computer, and Network take the place of My Documents, My Pictures, My Music, My Computer, and My Network Places used in XP.

Its bottom rectangle has just three items: Control Panel, Default Programs, and Help and Support. Here are the details:

**Personal (User Account Name):** this folder contains the folders provided by Vista and also holds your personal folders.

**Documents:** this folder holds your personal documents of all types--word processor documents, spreadsheets, and so on.

**Pictures:** this folder contains the sample pictures provided by Vista and also holds your personal pictures.

**Music:** this folder contains the sample audio clips provided by Vista and also holds your personal collection of music.

**Games:** this folder contains the games provided by Vista and your computer's manufacturer and also holds your personal games.

**Search:** this window lets you perform an extensive search of your computer for files, programs, folders, and much more. (Chapter 10 describes the layout of the Search window, discusses its keyboard navigation, and presents its most useful options.)

**Recent Items:** this menu shows a list of the files, programs, and folders you accessed recently.

**Computer:** this window shows your computer's disk drives.

**Network:** this window shows the parts of a network when you are part of a Local Area Network.

**Connect To:** this window lets you connect to a network.

**Control Panel:** this window lets you customize the appearance and functionality of Vista. When initially displayed, **Control Panel** looks and acts as a web page filled with links. You need to know about web links and how you navigate them to work with the **Control Panel** in this form. However, you are able to change the default **Control Panel** layout into a manageable list format that works much better with a keyboard. (Tap the **Tab** key to move off the **Search** text box in this window and onto its Classic View link; tap the **Enter** key to display the contents of the **Control Panel** as a list.)

**Default Programs:** this window lets you specify the programs you want to rely on routinely.

**Help and Support:** in this window, you can browse and search Help topics about Vista and your computer. (Chapter 9 describes the layout of this window, discusses its keyboard navigation, and presents its most useful options.)

# Shut Down Options

There are three items below the right pane, which let you suspend your computer, lock your computer, or turn off your computer. The two buttons **Power** (or Sleep) and **Lock** put your computer into a low-power state or lock your computer so other users can't access your files. The third item, a drop-down menu, offers seven ways to handle your computer. Here are the details:

A brown button (with a vertical bar in the middle of a circle) resides just right of the **Start Search** text box. It serves as the **Power** button on a desktop computer. It saves all open files and programs to your computer's hard drive and then places your computer in a low-power state for quick start-up. It serves as a sleep button on a laptop computer. It keeps all your open windows and programs in your computer's memory and goes into a low-power mode for even quicker start-up.

Activate this button to save your current work and to put your computer to bed. It puts your computer in a low-power state to save energy; it doesn't turn off your computer completely. Tap any key (like Shift or Ctrl) later on to awaken your computer and resume your work just where you left off.

You can change the function of the Power/Sleep button, even selecting different settings for the **Power** button when a laptop is on battery power and when it's plugged in. Review the Power Button Options under Turn Off your Computer in Chapter 2 for the details.

**Lock this computer** button (with a picture of a padlock) follows. If this button is activated, then Vista locks your computer so that nobody can use it without correctly entering your password at the Logon screen.

Select the **Lock** button to protect and hide your work while you take a break. The logon screen makes its appearance. Just enter your password when you wish to resume your work.

The arrow to the right of the **Lock** button opens a drop-down menu that displays the **Log Off** and **Shut Down** options and five more options. All seven options become visible when you move onto this control, and the **Shut Down** option is selected. Pick the **Shut Down** item with a tap of the Enter key to turn off your computer, or use the Arrow keys to move onto a different option. Here is the complete list of the seven available log off and shut down options:

**Switch User** enables fast user switching; this is a way to switch between users on your computer without closing files and programs. This option makes it easier for you to share your computer with others.

**Log Off** closes all your files and programs and logs you off from Vista without turning off your computer. Other logged-on users may continue to work.

**Lock** protects your privacy. Others are unable to snoop through your files and folders when you are away from your computer. You stay logged on. (This option works just like the **Lock** button.)

**Restart** closes all your files and programs, turns off your computer, and then restarts it. This option lets you reboot your computer when a problem occurs with Vista or another program. (You often need to reboot when you install new software or when you install downloaded Windows Updates.)

**Sleep** saves your open documents and programs, and puts your computer to bed. It allows your computer to quickly wake up (typically within several seconds) when you want to get back to work. **Sleep** replaces the Standby option in XP. (This option works just like the Power/Sleep button.)

**Hibernate** puts your laptop computer into a low power state and saves your work to your hard disk so you can safely power off your laptop.

**Remark:** Sleep and **Hibernate** may not be available on your computer. They depend on the computer's hardware configuration and the power plan in effect.

**Shut Down** lets you safely close all windows and turn off all power to your computer.

# Window Navigation

You can open the Start window in two ways: tap either Win key, or tap the Ctrl + Esc key. Just tap the Esc key to close this window; keyboard focus stays on the Start button.

As previously discussed, think of this window as two lists placed side by side--a list of programs and folders of programs on the left, and a list of system components on the right. Keyboard focus is always placed on the **Start Search** text box located below the left pane when this window appears. From there, you may rely on Arrow keys to get elsewhere. Tap the Up Arrow key while on this text box, to move onto the bottom of the left pane, the **All Programs** button. Repeatedly tap the Right Arrow key while on this the **Start Search** text box, to move farther right and onto the three items located below the right pane, **Sleep, Lock**, and **Shut Down**. Tap the Up Arrow key while on either the **Sleep** button or the **Lock** button, to move onto the bottom of the right pane, the **Help and Support** item. Tap the Enter key while on the **Shut Down** option, to turn off your computer completely, or tap the Up Arrow key to show the options preceding the **Shut Down** option.

A single tap of the Tab key, while on the **Start Search** text box, moves you onto the top of the right pane, your **Personal Folder**; a triple tap of the Tab key moves you onto the top of the left pane, your **Internet browser**. A single tap of the Shift + Tab key moves you onto the bottom of the left pane,

the **All Programs** button. In summary, repeatedly tap the Right Arrow key to reach the three items below the right pane--**Sleep** button, **Lock** button, and **Shut Down** options. Repeatedly tap the Tab key to reach the two panes--program pane on the left and system pane on the right.

Use the **Home** and **End** keys to move to the top and bottom of a pane. Use the Arrow keys to move vertically through items on a pane, or use the Letter keys to reach their items immediately.

# Window Keys

A few of the items in the **Start** window possess shortcut keys. You can tap them at anytime and anywhere in Vista and bypass the **Start** window. How convenient if you can remember them.

**Win or Ctrl + Esc**

> Up pops the **Start** window in all its glory. Tap either key again to close it.

**Win + E** or **Computer** on the right pane

> An explorer window labeled **Computer** appears.

**Win + F** or **Search** on the right pane

> An explorer window labeled **Search Results** appears. (You learn about it in Chapter 10.)

**Win + L** or **Lock** below the right pane

> Vista locks your computer and displays the **Logon** screen.

**Win + R** or type the word run in the Start Search text box

> A dialog box labeled Run appears.

**Win + F1** or Help and Support on the right pane

> An explorer window labeled **Windows Help and Support** appears. (You learn about it in Chapter 9.)

**Alt + F4** when at the **Desktop,** or at **Sleep** below the right pane

A dialog box labeled **Shut Down Windows** appears. It has a list box with five options; **Sleep** has focus, but you can pick **Shut Down** instead.

# New and Old Programs

All the programs that come with Vista are listed under the All Programs item located at the bottom of the left pane in the Start window. A few programs are new and a few are just renamed and improved. Programs are presented below with their old and new names and improvements:

XP: Picture and Fax Viewer; Vista: Photo Gallery

The new Windows Photo Gallery lets you organize collections of digital photos, search those collections, and tag photos within collections for easy retrieval.

XP: Address Book; Vista: Windows Contacts

Windows Contacts improves upon the Windows Address Book; now you may add photos to your contacts. Vista transfers all your contact data from Address Book in XP to Windows Contacts in Vista when you run the Windows Easy Transfer program.

XP: Outlook Express; Vista: Windows Mail

Windows Mail comes with Vista and fixes many shortcomings and bugs in Outlook Express. In addition, it has better junk e-mail filters and easier setup steps. (Windows Live Mail will in the near future replace Windows Mail in Vista.)

XP: Fax Console; Vista: Fax and Scan

Windows Fax and Scan lets you fax and scan documents and pictures, create fax cover pages, and send scanned documents and pictures as faxes or e-mail attachments. This program comes only with Vista Business, Vista Enterprise, and Vista Ultimate.

XP: NetMeeting; Vista: Meeting Space

Windows Meeting Space lets you collaborate online with other users and share your documents and programs, as well as your Windows desktop.

# CHAPTER 6
# FOLDER WINDOWS

Your personal folder (listed as the User account at the top of the right pane on the Start window) holds all of your primary folders. It holds the 11 folders created for you by Vista--Contacts, Desktop, Documents, Downloads, Favorites, Links, Music, Pictures, Saved Games, Searches, and Videos--and the file folders created by you. Vista provides you with 11 different Windows where you can browse through your folders; all of them are laid out and work the same way.

**Remarks:** I use the term "Folder Window" to emphasize that its content consists of files and folders. Folder windows possess very similar Command and Column Header Bars. I call a window an "Explorer Window" when it shows items other than files and folders. For example, the explorer window for **Computer** shows disk drives, and the explorer window for **Control Panel** shows parts of Vista, etc. Explorer windows have very different Command and Column Header Bars. (The explorer window for Control Panel doesn't really have a Command Bar at all!) Vista makes no distinctions in its Help and Support topics between "Folder" Windows and "Explorer" Windows; all of these windows are called Explorer Windows.

Follow these steps to open a folder window:

  1. Display the **Start** window with the Win key.

  2. Move onto your folder at the top of the right pane with the Tab key and tap the Enter key to open its folder window.

  3. Move through your list of folders with the Arrow keys.

  4. Move onto the desired folder and tap the Enter key to open its folder window and display its contents.

You should routinely place different kinds of files in their proper folders. This helps keep them separated and organized. Programs place their files in the proper folders for you when you save them. For example, write a letter with either the WordPad program or Microsoft Word, and save your letter in the usual manner--with the **Save As** command on the File menu. The program places it in your Documents folder automatically--not in another user's Documents folder, not in a Music folder, etc.

Although all 11 file folders provided for you by Vista are listed under your User account, a few of them are repeated in the top part of the right pane

below the User account for quicker access. Remember that you may create subfolders inside any of these folders to organize your files better. For example, you may create subfolders in the Pictures folder to organize your pictures by date, by event, by family members, and so on. Here are brief descriptions of these 11 folders:

**Contacts**

This folder replaces the Address Book in XP and holds all the e-mail addresses to which you sent e-mail. E-mail recipients are listed on little "business cards". You can move onto a business card entry, pop up its shortcut menu, and immediately send that recipient an e-mail.

**Desktop**

Vista treats your Desktop as a folder, and every item you place on your Desktop resides in this folder. Don't bother with this folder unless you have a technical reason to go there.

**Documents**

WordPad, Microsoft Word, and most other text or document preparation programs place your work routinely in this folder. You should do likewise. For example, if you copy documents off a disk, a network, or the Internet, put them in this folder. That way, you can easily find your documents.

**Downloads**

You will eventually get documents, songs, or photos off the Internet. They are placed in this folder so you know where they are on your computer.

**Favorites**

Internet Explorer lets you save your frequently-visited websites as Favorites. They are placed in this folder so you may quickly access them from a common place. (They also live on the Favorites menu of Internet Explorer.)

**Links**

This folder lists all the places found on the Navigation Pane of a folder window. They are placed in this folder so you may quickly access them from a common place.

**Music**

Copy music from CDs or the Internet to your computer with Windows Media Player (or your favorite music program), then the songs are stored here in a subfolder named after the song title.

**Pictures**

All kinds of pictures are placed in this folder--photos from a digital camera, images from a scanner, or images off the Internet. This folder displays live thumbnails of your images; you can even create slide shows from them.

**Saved Games**

Saved games such as Chess or FreeCell, for example, live in this folder, so you can resume play at any time.

**Searches**

Any searches you save are stored in this folder. (You can also locate your saved searches via the Navigation Pane.)

**Videos**

Videos from camcorders and from the Internet belong in this folder. Video programs like Vista's Movie Maker look for videos here.

All folder windows work the same way and have the same parts even though they show quite different items. This chapter describes files and folders and the disks that hold them, describes folder window layout, and discusses folder window navigation via the keyboard.

# Disks as File Cabinets

Your computer has different kinds of disk drives. Every type has its own shape, capacity, and drive mechanism. For example, a square floppy disk fits into the floppy disk slot, and a circular compact disk goes into the CD tray. These two types of disks are called Removable Disks because you can remove them from their drive mechanisms and replace them with other disks--to achieve endless removable storage capacity. The hard disk is called Fixed because you can't detach it from its drive mechanism and remove it from the computer, and because it has a fixed storage capacity. Disks are spun around by their drive mechanisms and are filled by Vista and other programs and, most importantly, by you.

# Disk Drives

Disk drives are loosely comparable to file cabinets in an office. A computer can have multiple disk drives just as an office can have multiple file cabinets; the drives vary in storage capacity just as file cabinets vary in storage space. Disk drives are assigned labels by Vista for ease of reference just as file cabinets are given labels by the office manager for quick access.

For the sake of brevity, disk drives are assigned single letter labels. The drive name includes a letter and a colon, never just the drive letter! There are two essentially extinct drives with removable, square media labeled A: (the venerable floppy drive) and B: (its older big brother). Older computers have floppy drives, but most new computers with Vista do not.

The hard drive, called the local disk and labeled C:, holds all of Vista, all the programs you install on your computer, and all of your personal files. The compact disk drive is usually named D:, and is used more and more as the means for software installation on the primary hard disk. Additional drives, when present, are typically assigned letter names in alphabetical order. For example, another hard drive may have E: assigned as its designation. A video drive, which uses digital video disks to store movies, may have F: assigned as its drive designation. (Vista comes on a DVD and your computer must have a DVD drive for that reason.)

You may quickly check which types and how many drives your computer has. Remove disks from all drives, open the Start window, move onto the right pane, and pick the Computer item. Its window appears and lists all your drives.

# Hard Disk Drives

Your computer's hard drives are your biggest file and folder containers. Every computer has at least one hard drive. The hard drive with the little Windows icon marks Vista's residence. Activate a hard drive icon to display its files and folders--you rarely find much useful information this way. Instead, rely on the Start window to find files, folders, and programs.

# Other Drives and Devices

Common detachable storage gizmos and drives with removable media are briefly described here.

Floppy drives use square disks that hold relatively few files and are easily damaged; CDs and DVDs have taken their place.

Thumb drives (called that because they are about the size and shape of a thumb) work like disk drives even though they have no moving parts; they replace CDs as removable disk storage and hold 1, 2, or 4GB. They plug into USB ports, and Vista treats them as large capacity drives.

**Remark:** Thumb drives are a wonderful choice for back up media for a couple of reasons. You can erase files off of them or copy files onto them quickly and easily, much faster than on CDs. They are solid and have no moving parts, so your files are very safe and very hard to damage. There is only one drawback: thumb drives are so small they are easily misplaced.

Memory card readers are accessed via little slots on your computer. You insert memory cards from your camera or MP3 player into them so you can transfer photos or music onto your computer. Their icons look like empty slots.

MP3 players are popular devices that let you download and play your favorite songs. Vista displays pretty icons for a few MP3 players, but it merely displays a dull, generic thumb drive or hard drive icon for rival iPod products.

Plug digital camcorders, cell phones, or other gadgets into your computer, and Vista will display new icons for them. Activate icons to reveal the contents of their gadgets, and pop up their shortcut menus to learn what Vista allows you to do with them. No icons? Then you need to install drivers for those gadgets.

# CD and DVD Drives

There are three types of round removable disks that work with your computer:

1. Type 1: those that come to you filled up (music or software CDs or movie DVDs) --cannot be altered.

2. Type 2: those that come to you empty, and you are able to record stuff onto them, but you can't erase stuff off of them--are called R-disks.

3. Type 3: those that come to you empty, and you are able to not only record stuff onto them, but you are also able to erase stuff off of them, and reuse them--are called RW-disks.

Buy the cheaper R-disks when you want to permanently copy stuff (your favorite songs, important files) onto them. Buy the more expensive RW-disks

when you want to routinely back up stuff; they let you erase them and reuse them.

Disks are of two forms: Compact Disk (CD) and Digital Video Disk (DVD). Typically, a CD can hold 650MB, and a DVD can hold 4.7GB -- plenty of storage for a full-length movie. Most computers with Vista can record, erase, and rewrite CDs and DVDs--using a flameless process quaintly known as Burning Disks. Unlike XP, Vista can burn DVDs and even help you make movies.

Vista places a short description after each drive's icon to tell you what the drive can do. A drive that can burn CDs but not DVDs is labeled CD-RW. Writing information to a CD or DVD is called burning. You want to see the letters RW in the drive icon's name. If your drive says DVD-RW Drive, you've hit the jackpot. This means that your drive can both read and write to CDs and DVDs.

# Files

A new disk is empty; that is, entirely devoid of useful information. Stuff that is assigned a name and stored on a disk is called a File. You can store different types of stuff in a file: mere text with no real structure created with a text editor, a document with lots of format created with a word processor, and even a picture created with a paint program.

You can assign a single word or a phrase as a file name when you create a file. The file name "Letter" is brief but uninformative whereas the file name "Letter to Beverly" is longer but far more useful, and the file name "Letter to Beverly on May 1, 2007" is even longer and even more useful.

You can use any of the 26 letters, any of the 10 digits, any of the standard punctuation marks, and spaces in a file name. However, Vista thinks that upper- and lower-case letters are the same. Consequently, "Letter to Beverly" and "LETTER TO BEVERLY" are the same file names as far as Vista is concerned. A file name can be as short as one character and as long as 255 characters. Both extremes are less than useful. Pick a relatively short but meaningful file name so you can recall the document's content when you read its file name now and in the distant future.

There are a few weird and wild characters forbidden in file names. They are: @ (at sign), * (asterisk), : (colon), < (less than), > (greater than), | (vertical bar), ? (question mark), " (double quote mark), \ (backslash), and / (forward slash).

Programs must keep track of the content of their files. They accomplish this via suffixes that they append to the names of their files. For example, the suffix TXT means that the file contains text, the suffix HLP means that the file contains help topics, and the suffix DOC means that the file contains a document created with Microsoft Word. These programs automatically assign appropriate suffixes to the files that they create. You almost never need to know or care about file suffixes, and Vista hides them for that reason.

# Folders

Current disks can hold tens of thousands of files. A few dozen files are manageable no matter what--just put all of them on a disk any which way. However, hundreds, even thousands, of files randomly placed on a disk is a horror show, just as a multitude of files randomly dumped into a file cabinet. Luckily, you can arrange files placed on a disk in a fashion similar to the order given to paper files placed into a file drawer. Here is the scoop in brief.

You can divide a disk into labeled containers called Folders into which you place files or even other folders. The primary folders, the top-level folders on a disk are comparable to the file drawers in a file cabinet. Every computer folder is given a label just as every paper folder has a label written on its front. A folder may contain individual files or even other folders just as a file drawer can, and usually does, contain separate files and smaller folders. The number of folders on a disk is up to you. Vista helps you out with 11 standard folders in your User account to get you started--Documents, Music, and so on. It makes good sense to put your work into the proper folders so you can find it quickly.

A program will routinely place its files into the proper folder unless you tell it to do otherwise. For example, write a document with WordPad, a mini-word processor. Your document goes into your personal Documents folder in your User account automatically. So, when you want to read or edit that document just go to your personal Documents folder to access it.

In summary, think of your computer as a filing cabinet with as many drawers as disk drives. Computer folders play the same role as office folders--they hold files of various kinds and perhaps other folders. Vista helps you organize your files with its 11 standard folders, and you can make additional personal folders as needed--a folder to hold your recipes, a folder to hold your homework assignments, and so on. Folders can hold other folders, called subfolders. Rely on subfolders to organize the contents of the main folder. For example, I created a folder named Verbal View Tutorials, and created subfolders named Verbal View of Word, Verbal View of Online

Mail, Verbal View of Vista, and so on. This way, the various books are kept separated. (You learn elsewhere various ways to create personal folders and their subfolders.)

A folder may have as many subfolders as you like, and a subfolder may contain as many files as you like. For example, I created a folder labeled Math Off the Web where I put math articles I download. That folder, at present, has 5052 files. Luckily, there are many ways in Vista to find a desired file quickly in a folder even when that folder contains thousands of files.

# Paths

Vista searches for a file on a disk in the same way a secretary looks for a file in an office. The disk drives in a computer are analogous to file cabinets in an office. Vista searches on the disk prescribed by you, just as you would look in a file cabinet. A disk is divided into folders just as a file cabinet is divided into drawers. Vista scans a folder for the desired file just as you would flip through a file drawer for the requested item. Vista searches from folder to folder for the desired file, just you would move from file drawer to file drawer looking for the requested item. Vista locates the desired file in a specific folder just as you would find the requested item in a specific folder.

Vista can find the desired file when you precisely state where the file is located on your computer just as a secretary can find the requested item when it is known in which precise file cabinet, file drawer, and sequence of folders the requested item has been placed. The precise sequence of places in your computer to search through is called the Path; it begins with a disk letter and ends with the name of the file. Between the disk letter and the file's name are the intermediate folders listed in the order you must open them. The parts of the path are separated by the character \ which is called the BackSlash character. This symbol is located on the key just above the Enter key on newer keyboards or on the key just left of the BackSpace key on older keyboards. It is called the BackSlash because it is oriented backward when compared to the Forward Slash character. (The BackSlash character descends from left to right whereas the Forward Slash character descends from right to left.)

Here is the path that leads to the WordPad program:

    C:\Program Files\Accessories\WordPad

It tells you that the WordPad program is in file cabinet C:, in file drawer PROGRAM FILES, and in folder ACCESSORIES.

Paths are hard to remember and even harder to type correctly. Therefore, in Vista, they are hidden from view and are replaced by a more friendly way to find and display files, **Breadcrumb Trails**. (You never need to type a backslash in Vista unless you want to practice your keyboard skills.)

# Window Layout

A folder window in Vista differs markedly in layout and function from its counterpart in XP. This window in Vista reflects the new ways Vista shows files and folders and searches for them. The ugly and complicated Path Command in XP is mostly replaced by an attractive Address Bar (alias Breadcrumb Trail) that is far more intuitive to understand and, at the same time, more convenient and powerful. Its Breadcrumb Trail shows you the route you take to reach a file or folder and lets you interact with any file or folder along the way. Its enhanced search box lets you search for files and folders within the current folder. Address Bar and Search Box are located at the top of the window with Address Bar on the far left and the Search Box on the far right. The standard Window buttons--Minimize, Maximize and Close, are located above the Search Box.

A *dynamic* Command Bar comes next and replaces the static Standard toolbar in XP. The Command Bar begins with two standard buttons on the left, Organize and Views, and ends with the Get help button on the far right. Its commands vary from folder window to folder window and also change as the current task changes.

A *dynamic* Column Header Bar comes next. Its column headers vary from folder window to folder window, however, the leftmost header is labeled Name.

Your files and folders are displayed in a list located below the Column Header Bar. You can interact with the items in the list in three different ways:

1. You may display the Menu Bar with a tap of the Alt key and, on its View menu, pick seven different layouts for the list.

2. You may move onto the Column Header Bar and pick a header; the items in the list are then arranged by that header in ascending or descending order.

3. You may select an item in the list and perform a command on it by moving onto the Command Bar and picking a command.

There are optional panes that may appear within a folder window. You are advised to turn them all off to minimize window clutter and make window navigation more convenient.

# Tab Order

The prior paragraphs briefly described the anatomy of a folder window. The rest of the chapter presents all of the details. However, here's a brief statement describing the order in which you move through sections of the window with the Tab key so that you are oriented properly as you read the material.

A folder window's list has keyboard focus when the window opens. Rely on navigation keys to select an item, file or folder.

You may perform a command on a selected file or folder. Tap the Shift + Tab key to leap onto the Command Bar. You land on the leftmost button, usually the Organize button. Move left and right with Arrow keys. Pick the command you wish to perform with a tap of the Enter key.

You may rearrange the items in the list. Tap the Tab key to leap onto the Column Header Bar. Move left and right with Arrow keys. Select the desired header and tap the Enter key. Items are rearranged in ascending or descending order. For example, initially items are arranged in alphabetic order. Move onto the Name header and tap the Enter key. Items are now arranged in descending order, z through a; pick the Name header again to reverse the order.

You may place the keyboard focus over the Address Bar; tap Alt + D and Esc. Tap the Tab key to move onto the Search Box from there; another tap places you on the Command Bar, and you next reach the list.

# Breadcrumb Trail

Typically, you work like this: display the Start window, pick your User account, pick a folder, perhaps pick a subfolder or a sequence of subfolders, and finally pick a file. The associated program launches and opens the file, and you get to work. That is, you traverse a sequence of folders, which begins with your personal folder, to reach the desired file. The sequence of folders traversed constitutes the Breadcrumb Trail.

The Breadcrumb Trail resides at the top left corner of the folder window in the Address Bar. It shows your current location in Vista. It displays your folders (the breadcrumbs) separated by little black triangles that point to

the right. The Breadcrumb Trail begins with your username instead of a drive letter as in XP.

Repeated taps of the Tab key eventually place you on the Breadcrumb Trail in the Address bar, but you have a quicker way to get there. Just tap the Alt + D key to put keyboard focus there. Now, the Breadcrumb Trail is shown as a path as in XP. Just tap the Esc key to get the breadcrumbs back instead of the path.

Once on the Breadcrumb Trail, you are able to traverse its breadcrumbs with the Left and Right Arrow keys and stop at any breadcrumb and show its contents or a list of its subfolders. That is, you can open intermediate folders and their subfolders if you wish.

You can go to an intermediate folder location via its breadcrumb--move onto a breadcrumb via the Left and Right Arrow keys and tap the Enter key to open its folder window. You can go to a subfolder of a breadcrumb via its little black triangle--move onto a breadcrumb via the Left/Right Arrow keys and tap the Down Arrow key to open a list of its subfolders, and pick a subfolder. (The Breadcrumb Trail changes and shows the intermediate folder or subfolder route.)

Breadcrumbs are easier to work with than to explain. Here's an example to clarify the way the Breadcrumb Trail works on my laptop:

1. I display the Start window.

2. I pick my personal folder, Peter.

3. I pick my document folder, Documents.

4. I pick my math folder, Books on Math.

5. I pick my book folder, Road to Reality.

Here's my Breadcrumb Trail:

    Peter, Documents, Books on Math, Road to Reality

Now, I can leap onto the Breadcrumb Trail and go elsewhere. I can move onto Documents and tap the Enter key to show all my documents, or I can tap the Down Arrow key to show all the subfolders in Documents. Experiment on your computer. Open folder windows and use the Breadcrumb Trail to go to intermediate folders and subfolders. (XP users will quickly realize how handy breadcrumbs are in comparison to complicated path commands in XP.)

**Remark:** Path commands occasionally still lurk in the background in Vista. They appear when you use a Browse button or place keyboard focus on the Address Bar in a window.

The Address Bar that holds the Breadcrumb Trail can show only a few breadcrumbs at a time; you may need to move left and right through the breadcrumbs to read all of them. A << button appears at the beginning of the Breadcrumb Trail when all of the breadcrumbs (intermediate folders) don't fit in the Address Bar. Activate this button to display a drop-down menu.

To the left of the Address Bar are three buttons labeled Back, Forward, and Recent Pages. Back and Forward let a mouse user move back and forward through the Breadcrumb Trail. Recent Pages lets a mouse user display visited pages.

You can tap the Alt + Left Arrow key to activate the Back button, and the Alt + Right Arrow key to activate the Forward button.

**Access Note:** There's no shortcut key for the Recent Pages button. However, you can access the same information in the following way: tap the Alt key to show the Menu bar, select **View**, and then pick its **Go To** option.

# Search Box

A folder may hold thousands of files. For example, you may download thousands of songs and place them in your Music folder. Your folder window will show all the files, but there are way too many to browse through. So, how do you find a favorite song to play? Filter the list so it shows a much smaller list of relevant files. For example, type a word or a phrase that occurs in the file name to filter out most unrelated files.

Here's how it works: type a word or phrase in the Search Box at the top right corner of a folder window. The items in the list are updated as you type characters. You don't need to tap the Enter key because a progressive search occurs with every character you type. Vista searches through this folder and all its subfolders for matches, and a list of matches immediately appears.

# Command Bar

Below the top line (the Breadcrumb Trail and Search Box) resides the new Command Bar, which replaces the Standard toolbar in XP. On its left are two buttons, Organize and Views; the Get help button is usually on its right.

## Organize Button

When depressed, this button displays a drop-down menu with these items: New Folder lets you create a subfolder of the current folder; Cut, Copy, and Paste lets you move or copy files; Undo and Redo lets you reverse or perform a command again; Select All lets you highlight all files listed in the folder window; Layout lets you include the Classic pull-down menus in the folder window and control which panes are displayed in the folder window; Folder and Search Options displays a property sheet with three tab pages labeled General, View, and Search; Delete and Rename lets you remove or rename files; Remove Properties lets you get rid of no longer needed file tags; Properties displays a property sheet with five tab pages labeled General, Sharing, Security, Location, and Customize; Close lets you close the folder window (it works just like the red Close button in the window's upper-right corner).

## Views Button

This changes the way that the files and folders in the window are displayed. Repeated mouse clicks or taps of the Enter key cycle through four of the seven available views. Its drop-down button lets you display a slider that will be discussed later in this chapter.

## Get help button

A question mark within a square represents the Get help button, not the word help. You can tap the F1 key to activate the Help button. An explorer window labeled Windows Help and Support appears and shows topics related to the folder's contents. Tap Alt + F4 when finished to close this window and return to the folder window.

**Access Note:** A screen reader may announce Overflow Menu just left of the Help button. There's no button visible with that label. It's anomalous; please ignore it.

The Command Bar in Vista, unlike the standard tool bar in XP, changes as you work. That is, its buttons automatically change to better relate to your current task. Here's a concrete example of how that happens and why you will enjoy its *dynamic* flexibility after you get used to its behavior.

Display your personal folder, located at the top of the right pane of the Start window, and display your Documents folder. Its window opens with keyboard focus on its list.

There's no item selected in the list. In this situation, the Command Bar has only four buttons--Organize, Views, Burn, and Help--because there's nothing to work on yet.

Select a file in the list. In this situation, the Command Bar now has eight buttons: Organize, Views, Open, Print, E-mail, Share, Burn, and Help.

Select a folder in the list. In this situation, the Command Bar has only seven buttons. The Print button is absent because you can't print a folder.

In general, after Organize and Views and before Help there exist buttons for commonly used commands that vary from folder window to folder window and from task to task. So, move onto a file or folder in the list and leap onto the Command Bar to find out what you can do next. For example, the Command Bar in the Music folder window has a Play All button, the Command Bar in the Pictures folder window has a Slide Show button, and the Command Bar in the Games folder window has a Parental Controls button.

The Command Bar shows all the commonly used commands for a folder window so Microsoft no longer displays a Menu Bar for a folder window. However, you may display a Menu Bar if you wish; merely tap the Alt key. A Menu Bar appears with keyboard focus on the leftmost menu item. Another tap of the Alt key hides the Menu Bar again.

**Access Note:** A screen reader user will need to rely on the View Menu on the Menu Bar because the Views Button on the Command Bar fails to announce its actions.

# Column Header Bar

File names are presented in alphabetical order either in paragraph layout or in newspaper layout in the list. This helps you find a specified file by name. However, you may wish to find a file by a different attribute instead, e.g., by date, size, and so on.

There is a handy and subtle change in Vista. Now, column headers are displayed before the list in every view. Which column headers are displayed depends on the contents of the folder window. For example, the column headers in the Documents window are:

**Name, Date Modified, Type, Size, Tags**

The column headers in the Music window are:

**Name, Artists, Album, Number, Genre, Rating**

Column headers relate to the contents of the folder window. They let you quickly arrange the items in a folder window by relevant attributes. For example, you may arrange your documents and your music selections by name.

Tap the Tab key while on the list to move onto the leftmost column header. Move onto a different column header with the horizontal Arrow keys; tap the Enter key to arrange the list by that column header. For example, in the documents list, move onto the column header Date Modified and tap the Enter key. The entire list of documents gets arranged by Date instead of by Name. Tap the Shift + Tab key to return to the list and check it out. Tap the Home key to move onto the top item in the list. Indeed, files are listed in date order instead of name order. Just repeat these steps and pick Name to put the list back in alphabetic order.

Move onto a column header and tap the Enter key to arrange the list by that column header; tap the Enter key again to reverse the order. For example, move onto Name and tap the Enter key twice to arrange the list by Name in reverse alphabetic order, z through a instead of a through z.

**Remark:** You may find yourself confused when you read a list; items seem mixed up. No doubt, the list was rearranged by a different attribute or placed in reverse order. Move onto the Column Header Bar, pick the normal attribute, and move to the top of the list. You are finished unless the list reads backwards; in this case, reverse the order.

A column header, when you move onto it and tap the Enter key, arranges the items in the list by that attribute. However, a column header can do much more for you.

A column header looks just like a word or a phrase, but if you move the mouse pointer over it, an Arrow control appears. That control lets you Arrange, Group, Filter, or Stack the items in the list. You can move onto a column header, tap the Down Arrow key, and pick an option. Items are arranged by that option. Here are a few examples, but you may ignore all of this stuff without regret.

The list gets divided into comparable chunks when you group items. For example, if you group by name, then items are listed in three groups, a through h, i through p, and q through z. If you group by size, then small files are displayed together, then medium sized files, and finally large files.

The list gets shortened when you filter items; only those that meet the specified criteria are displayed. The options by which you filter the list are

customized to match the current folder's contents. For example, you may tag your documents as Family Members, Friends, Co-workers. Then you can filter your list of documents by any of these tags to shorten the document list.

The list gets divided into piles when you stack like items. Related files are visually piled on top of one another to form a stack of files. For example, rearrange your list of documents by any of your tags (Family Members, Friends, and Coworkers) and then stack them. You end up with three stacks of files labeled Family Members, Friends, and Coworkers.

Unlike groups, the stacked view of your files doesn't persist when you close the folder window. Instead, a stack displays a blue icon indicating it represents a search folder. That means you can pick a stack, pick Save Search on the Command Bar and then, at any time, revisit that stack, with updated contents, via the Search command in the Start window.

**Remarks:** (1) Pick the view for a folder window. (2) Rearrange its contents and then group them if you wish. (3) Its column headers and their available menu options vary, so read them carefully. (4) Folders are listed before files in a folder window, so don't be surprised if items seem out of alphabetic order. (5) You are able to return the contents of a folder window to their normal arrangement after you group or stack them; employ the Sort option on that column's drop-down menu to accomplish that.

# List

The list shows the entire contents of the folder window. However, if you enter text in the Search box, then only the files and folders that match your search are displayed in the list.

There are seven different views for the list, and they allow you to view its items in various arrangements. Six of the seven views are described below.

**Remark:** Column headers in the Column Header Bar line up with their respective columns only in the Details View discussed later. However, in all other views, although the column headers do not line up with list contents, they are there so you can rearrange your list by the attributes of any particular header, as previously described.

# The Four Icon Views

You may pick the icon size in an Icon View: Extra Large, Large, Medium, and Small. By default, the list in a folder window has the Medium Icon view.

An **Icon View** places items in alphabetical order in paragraph layout. That means items are arranged alphabetically across rows and continued onto more rows. For example, the files in my Math folder are listed in rows, ten file names per row. The next row begins where the previous row left off. There are over 500 rows, so a vertical scroll bar appears in the folder window.

The horizontal Arrow keys move you across the current row of items. The vertical Arrow keys move you through the current column of items. You can type the first few letters of an item (file name or folder name) to move directly to that item in the list, and, in that way, you can ignore the paragraph layout of the list.

Icons are live in Vista; this means they display the first page of a document, the image of a photo, or the album art for a song when the mouse pointer hovers over them. Names of files are placed below their icons.

# List and Details Views

List View places items in alphabetical order in newspaper layout. This means that items are arranged alphabetically down columns and continued onto more columns. Items are placed to the right of their icons. For example, the items in my Math folder are listed in columns, 37 items per column. The next column begins where the previous column left off. There are over 130 columns, so a horizontal scroll bar appears in the folder window.

Left and right Arrows let you move across the current row of items. Up and Down Arrow keys let you move through the current column of items. You can type the first few letters of an item (file name or folder name) to move directly to that item in the list, and, in that way, you can ignore the newspaper layout of the list.

Details View places items in alphabetical order in a single column in a table layout. This means that items are arranged alphabetically down a single column. Items are placed to the right of their icons. For example, the items in my Math folder are listed in a single column of 5070 items. There are 5070 rows, so a vertical scroll bar appears in the folder window.

More columns follow the Name column in the table. The number of columns depends on the folder window; the number of rows matches the number of items.

For example, a row in Details View for the Documents folder would have this layout:

**Name, Date Modified, Type, Size, Tags**

Left and right Arrows let you move across the table, and Up and Down Arrows let you move through the table. In addition, you can type the first few letters of an item (file name or folder name) to move directly to that item in the list, and, in that way, you can ignore the table layout of the list.

**Remark:** Display the Menu Bar, and pick the Details view on the View menu for the list so column headers match up with details in the list. Then, you may read an item's stats as you move vertically through the list.

## Extra Panes

There are four optional panes that may appear within a folder window. You are advised to turn them all off to minimize window clutter and make window navigation more convenient. (The four window panes are discussed fully in Chapter 8.)

# Window Navigation

Now, you learn the best ways to move through the parts of a folder window with the keyboard. Display the Start window with the Win key, move onto your User account with the Tab key, and tap the Enter key to display its folder window. Now, pick any folder window with which to practice.

## List

A folder window opens with keyboard focus on its list with no item selected. Use an Arrow key to move onto the next item. Use the Home key to move onto the first item and use the End key to move onto the last item. Type the first few letters of a name to move directly onto that item. Browse through the list until you move onto the item (file or folder) you want. Tap the Enter key to launch its associated program and open its program window.

## Organize Button

Tap the Shift + Tab key while on the list to move onto the Organize Button; this is the leftmost button on the Command Bar. Tap the Enter key to activate this command button. A drop-down menu opens with no item selected. A tap of an Arrow key will move onto an item and select that item. (Please review the available menu options.)

## Views Button

You may arrange the items in a folder window in seven different ways, as described previously under List. However, mouse users may rely on the Views button on the Command Bar. Repeatedly click the Views button and the layout of the list changes with every click. The view cycles through four of the seven different layouts in succession (You can't get to the other three views this way).

You will meet a new kind of control in a folder window and elsewhere called a Split Button. A Split Button, as its name suggests, has two parts, a standard command button and a little arrow framed by a square on its right. As usual, move onto the command button and tap the Enter key to activate its command. Alternatively, tap the Down Arrow key to a display a small drop-down menu listing variations for the main command.

The Views Button is an example of a Split Button. Activate this button with the Enter key to cycle through four views. Alternatively, activate the button with the Down Arrow key to display all seven views as well as a slider that lets you alter icon size when the current view is an Icon View. It also lets you change the active view.

**Access Note:** Neither part of any Split Button works well with a screen reader. A user can move onto the command button and activate it with the Enter key, but a screen reader won't announce the change in layout. Moreover, there is no way to access the menu items on its drop-down menu. Therefore, a screen reader user can't reliably employ this control. Instead, a screen reader user should rely on the View menu on the Menu Bar (where all seven views are accessible), as previously described.

# Split Button to the Left of Breadcrumbs

You can go to an entirely new folder window from the current folder window. This is often convenient. For example, you are hard at work on a document and decide to listen to music while you work. You can, from the Document window, open the music window and play an album.

A Split Button, located to the left of the Breadcrumb Trail in the Address Bar, lets you open common folder windows or personal folder windows. Tap the Alt + D key to move onto the Address Bar. Then, tap the Esc key; a split command button to the left of the Breadcrumb Trail has keyboard focus. Now, you have two choices:

  1. If you tap the Enter key, a text box appears which shows your current path. Type a common folder location to replace it and tap the Enter key; its folder window opens. The common folder locations include Computer, Contacts, Control Panel, Documents, Favorites, Games, Music, Pictures,

Recycle Bin, and Videos. You can also go onto the Internet--type a web address in the text box and tap the Enter key. The folder window switches to the window for Internet Explorer.

2. Alternatively, don't tap the Enter key--instead tap the Down Arrow key. A list of folder windows appears, and they are as follows: Desktop, Your Personal Folder, Public, Computer, Network, Control Panel and Recycle Bin. Pick an item or tap the Esc key to close the list.

**Remark:** In either situation, rely on the ALT + Left Arrow key to return to the previous window.

# Window Keys

A few of the items in a folder window possess shortcut keys. How convenient if you can remember them.

### F1 for the Help Button

A window labeled Windows Help and Support appears and shows topics related to the folder's contents. Tap Alt + F4 when finished to close this window and return to the folder window.

### Alt + D for the Address Bar.

Keyboard focus moves there and the Breadcrumb Trail appears as a path command. Tap the Esc key to get the breadcrumbs back.

### F4 for Address Bar History

Keyboard focus moves onto the Address Bar; paths for previously visited windows are displayed.

### Alt + Left/Right Arrow for Folder History

You move back and forth through previously visited folders in the folder history.

### Alt + Up Arrow for Folder History

Move up a folder (to the parent folder).

### Alt or F10 for Menu Bar

The classic Menu Bar appears. Tap Esc to dismiss it.

**Tab or Shift + Tab**

Place keyboard focus on the Address Bar with Alt + D and Esc. Tab
moves keyboard focus onto successive window parts in this order:
Address Bar, Search Box, Command Bar, List, Column Header Bar, and
back onto Address Bar. (Shift + Tab moves in reverse order.)

**Left/Right Arrow**

You move back and forth through Address Bar, Command Bar, or
Column Header Bar items.

# CHAPTER 7
# EXPLORER WINDOW

A folder window shows you the files within a folder--your documents reside
in your Documents folder, your favorite songs live in your Music folder, and
so on. An explorer window, on the other hand, shows you other stuff. For
example, the explorer window for Control Panel shows you the parts of
Vista and its control centers. The explorer window for Computer shows you
the disk drives on your computer. The explorer window for Recycle Bin
shows you the junk you discarded--deleted files, folders, programs, and
shortcuts.

**Remark:** As mentioned earlier, Vista makes no distinctions in its Help and
Support topics between Folder Windows and Explorer Windows; all of these
windows are considered to be Explorer Windows.

Vista provides you with many explorer windows. All explorer windows are
laid out and work almost like folder windows. This chapter briefly
summarizes explorer window layout and explorer window keys and then
tells you about three important explorer windows: Control Panel, Computer,
and Recycle Bin.

## Window Layout

An explorer window has the same parts as a folder window. Near the top of
the window is an Address Bar on the far left, which shows the Window
Name, and a Search Box on the far right. A dynamic Command Bar occurs
on the next line. Its commands vary from explorer window to explorer
window, and also change as the current task changes. A dynamic Column
Header Bar occurs on the line below the Command Bar. Its column headers

also vary from explorer window to explorer window. They let you arrange the items in the list that is located below the Column Header Bar.

Items (parts of Vista, your computer drives, your rubbish) are displayed in a list that takes up the rest of the explorer window. As previously described, you can interact with the items in the list in three different ways. Display an explorer window (Computer, Recycle, etc.) and try:

1. You may display the Menu Bar with a tap of the Alt key and, on its View menu, pick seven different layouts for the list.

    Press Alt and V to pop up the View menu; press vertical Arrow keys to move through the menu items.

2. You may move onto the Column Header Bar and pick a header.

    The items in the list are then arranged by that header, in ascending or descending order.

3. You may select an item in the list and perform a command on it by moving onto the Command Bar and picking a command.

**Remark:** In an explorer window, display the Menu Bar, and pick the Details view on the View menu for the list so column headers match up with details in the list. Then, you may read an item's stats as you move vertically through the list.

There are four optional panes that may appear within an explorer window. As mentioned earlier, you are advised to turn them all off to minimize window clutter and make window navigation more convenient with the keyboard. (These four panes are discussed fully in Chapter 8.)

# Window Keys

A few parts of an explorer window possess shortcut keys. How convenient if you can remember them.

**F1 for the Help Button**

    A window labeled Windows Help and Support appears and shows topics related to the folder's contents. Rely on the Alt + F4 key when finished to exit this program and close its window.

**Alt + D for the Address Bar.**

Keyboard focus moves there; the Breadcrumb Trail appears as a path command. Tap the Esc key to get the breadcrumbs back.

**F4 for Address Bar History**

Keyboard focus moves onto the Address Bar; paths for previously visited windows are displayed.

**Alt + Left/Right Arrow for Window History**

Move back and forth through previously visited windows.

**Alt + Up Arrow for Window History**

Move up a window (to the parent window).

**Alt or F10 for Menu Bar**

The classic Menu Bar appears. Tap Esc to dismiss it.

**Tab or Shift + Tab**

Place keyboard focus on the Address Bar with Alt + D and Esc. Tab moves keyboard focus onto successive window parts: Address Bar, Search Box, Command Bar, List, Column Header Bar, and back to Address Bar. (Shift + Tab moves in reverse order.)

**Horizontal Arrows**

You move back and forth through Address Bar, Command Bar, or Column Header Bar items.

# Control Panel Window

Vista is intended for the masses. Microsoft designed Vista to meet virtually every need of every potential user, and envisions a computer in every home, on every desk--usable by everybody. Thus, Vista is vastly more extensive than its predecessors are. Vista is actually a collection of thousands of programs. You are able to customize Vista and its programs to meet your personal needs.

You have a control center in Vista, called the Control Panel, which has all the stuff you need to customize the look and behavior of Vista. Display the Start window and pick Control Panel on its right pane to launch this

program and display its explorer window. Rely on the Alt + F4 key when finished to exit this program and close its window.

**Remark:** There are other ways to reach Control Panel. Display the Start window, type Control Panel in the Start Search box and then, in the list of results, pick Control Panel. Alternatively, place Control Panel right on your Desktop as a shortcut.

# Category View

Control Panel makes its grand entrance in Category view by default. Category view shows items as web links in a very complicated format. So get rid of it!

The Search box gets keyboard focus when in Category view. Tap the Tab key to move the keyboard focus onto the Classic View link. Tap the Enter key to activate that link and switch to a more accessible list format. Press the Alt + F4 key to exit Control Panel. The next time you access the control Panel, it appears in Classic view.

The list box gets keyboard focus when in Classic view. It's simple enough to return to the Category view if necessary. Tap the Shift + Tab key to move keyboard focus onto the Control Panel Home link. Tap the Enter key to activate that link and switch back to Category view. Press the Alt + F4 key to exit Control Panel. The next time you access the control Panel, it appears in Category view.

# Classic View

Classic view shows the parts of the Control Panel (about 50 items) in an alphabetical list. There are two commands on the Column Header Bar, Name and Category. Ignore both of them because they have little utility. Also, ignore the Search box, as it doesn't find much in Classic view (but works well in Category view). Instead, you must pick an item in the list to find out what it does.

The name of an item and the category to which it belongs are read as you move through the list. Tap the Enter key to pick the selected item.

**Remark:** Often you can bypass Control Panel and use a shortcut menu instead. Move onto an item on the Desktop, on the Start window, or on the Taskbar, and pop up its shortcut menu to find out what commands are available. Its menu items let you carry out most tasks and make most changes. Control Panel, however, offers a convenient place where you can find all of Vista's secret switches.

# Computer Window

Your computer has different kinds of disk drives. They are comparable to file cabinets in an office. A computer can have multiple disk drives just as an office can have multiple file cabinets; the drives vary in storage capacity just as file cabinets vary in storage space.

Disk drives are assigned single letters by Vista for ease of reference. There are two mostly extinct drives with removable, square media labeled A: (the venerable floppy drive) and B: (its older big brother). Older computers have floppy drives, but most new computers that come with Vista installed don't. However, they do always have a DVD (Digital Video Disk) drive because Vista comes on a DVD.

The hard drive, called the local drive and usually labeled C:, holds all of Vista, all the programs you install on your computer, and all of your personal files. This hard drive shows the Windows icon--that means Vista resides there. Vista reserves a portion of the local drive for a Recovery Drive labeled D:; it holds all the necessary backup files for Vista just in case a disaster occurs and you need to recover.

The drive labeled E:, a DVD drive, plays your music CDs, runs program disks, and shows DVD movies. Additional disk drives and other storage devices, when present, are typically assigned letter names in alphabetical order. For example, a thumb drive plugged into a USB port on my Vista laptop is assigned F: as its drive letter.

# Show Drives and Devices

You may quickly check which types and how many drives your computer has. Display the Start window, move onto its right pane and pick Computer. Its window appears and lists all your disk drives and other storage devices.

This window shows your computer's parts in three groups: hard disks, devices with removable media, and network drives. As mentioned before, every drive is assigned a drive letter, placed within parentheses and followed by a colon. For example, local Disk (C:) for your hard drive.

Common devices with removable media include:

**Floppy Drives**

These are mostly defunct, unreliable, low capacity devices.

**CD and DVD Drives**

These let you play CDs and DVDs. Vista tells you whether these drives can only Read disks or can Read and Rewrite (erase) disks. For example, a drive labeled DVD-RW means that it can both Read and Rewrite onto DVDs (as well as onto CDs). A drive labeled CD-RW means that it can both Read and Rewrite onto CDs (but not onto DVDs).

**Memory Card Readers**

These devices let you insert memory cards from a camera, MP3 player, or similar gadget into your computer and copy files and folders off of them.

**MP3 Players and Digital Cameras**

These devices let you copy music and video onto and off of your computer.

**Command Bar**

This window has a Command Bar. Which commands appear on this Command Bar depends upon the kind of drive you select.

Move onto a hard drive or a network drive in the list. Here are the commands, in addition to Organize and Views, which become available on the Command Bar:

**Properties**

This button displays the General tab of a Properties sheet for the selected drive. The General tab lets you change the drive's name, view its used and free space, compress it, and index its files and folders. This property sheet also has tabs that let you customize and share the drive on a network. (Rely on this property sheet instead of the Details pane when you want to check the amount of free space on a disk.)

**System Properties Button**

Displays a window that shows basic computer system information--your computer's microprocessor, your computer's name, available memory, and Vista's version and product ID. (Rely on this window instead of the Welcome Center when you must look up the Version Number and Product ID for Vista.)

**Uninstall or Change a Program Button**

This function displays the Programs and Features item in the Control Panel window. Here you can remove a program you've installed or modify its installation (by adding components or reinstalling them). Here, you can also invoke the Compatibility Mode for a program so it works on Vista. For example, I told Vista to run my OpenBook program as if it was running on a Windows 98 computer, and then it worked properly. (It no longer gave me Registry errors.)

**Map Network Drive Button**

This feature, available only when on a network, plays the Map Network Drive dialog box. You can assign a drive letter to a folder located on a physical drive of a network computer (to which you have access). You can then use the mapped drive letter to open that network folder from the Computer window on your computer.

Move onto a removable drive (CD, DVD, USB) instead of a hard drive or a network drive in the list. Here are the three additional commands, which become available on the Command Bar:

**AutoPlay Button**

This command appears on the Command Bar after you insert a CD or a DVD. Vista plays multimedia files on CD or DVD disks. Rely on this command on the rare occasion when Vista doesn't automatically play them, right after you insert the disk.

**Eject This Disk Button**

Vista opens the CD or DVD disk drive so you can remove or insert a disk.

**Burn to Disk**

This feature launches the Burn to Disk Wizard. It guides you through the steps to burn (copy) files and folders onto the CD or DVD disk. This only works if your computer has a drive that can Record (burn) files and folders onto a CD or DVD. Use a disk that is either empty or rewritable (erasable) and has sufficient room for all the files and folders you want to copy.

The Continuation Button (>>) automatically appears on the Command Bar when all these buttons don't fit on the Command Bar. Pick the Continuation Button to display a drop-down menu with the missing commands.

# Column Header Bar

This window has a Column Header Bar with four headers: Name, Type, Total Size, and Free Space. It has little utility by itself because you only have a few drives and don't really need to sort them to learn about them. Display the Menu Bar, and pick the Details view on the View menu for the list so column headers match up with drive details in the list. Then, you may read a drive's stats as you move vertically through the list.

# Access Drives and Devices

Move onto a drive or device, tap the Enter key and Vista will take the appropriate action. If you pick a disk drive, then Vista shows you its folders. If you place a music CD into your CD drive and pick that drive, then Vista usually launches Windows Media Player and plays your music.

You can tell Vista what to do **after** you insert a CD, DVD, or a USB thumb drive:

1. Select that drive or device.

2. Pop up its shortcut menu.

3. Pick its Open Autoplay option.

Now you can specify how you wish Vista to play its content.

**Remark:** A thumb drive may hold lots of files, folders, and also music tracks. Vista wants to start up Media Center when it detects music. Use the Autoplay option to inhibit that behavior.

If you select a CD, DVD, or floppy drive when no disk is inserted, Vista complains and asks you to insert a disk. Pop up the shortcut menu for a drive or device when you want to know what you can do with it.

# Recycle Bin Window

You should throw away files you no longer need along with unwanted shortcuts on your Desktop to remove clutter and free up drive and Desktop space. This chapter discusses the Recycle Bin--a temporary storage area for discarded stuff. Unlike a trashcan, you can rummage through the Recycle Bin and retrieve items that are accidentally or unintentionally discarded.

# Discard Junk

Throw away no longer needed or wanted files regularly. Here are the steps to accomplish this:

1. Access your personal folder and open a subfolder.

2. Move onto an unwanted file in that subfolder.

3. Delete the doomed file with the Del key.

4. To confirm your decision, respond Yes or No.

   That file is removed and tossed into the Recycle Bin.

You get rid of unnecessary Desktop shortcuts in a slightly different manner:

1. Move onto the Launch Area or onto the Display Area.

2. Move onto an unwanted icon.

3. Pop up the shortcut menu.

4. Pick its Delete option.

5. To confirm your decision, respond Yes or No.

   That shortcut is removed and tossed into the Recycle Bin.

**Remark:** In the Display Area, you may ignore the shortcut menu for an icon and just tap the Del key. This doesn't work in the Launch Area, however.

# Recycle Bin Keys

You can select a file, folder, or shortcut and get rid of it in two different ways:

**Del Key**

   Removes the current item and places it in the Recycle Bin.

**Shift + Del**

   Removes the current item and throws it away, but doesn't place it in the Recycle Bin. (Be very careful with this command because items are permanently deleted.)

# About the Recycle Bin

You can delete files and folders off your hard disk drive with a few quick key taps. Sometimes, you may erase the wrong files or folders and wish to restore them. Fortunately, Vista lets you reclaim deleted stuff (but not if you deleted it with the Shift + Del command).

Recycle Bin is a portion of the hard disk drive set aside to hold discarded files and folders temporarily. Recycle Bin is, in more human terms, a safeguard against errors, mishaps and blunders.

You can only reclaim files and folders deleted from the hard disk drive! Files and folders deleted from removable media or from a network are unrecoverable.

Items stay in the Recycle Bin until you reclaim them or until Vista takes them away to the dump. Vista dumps out the excess trash automatically; you never have to bother with the Recycle Bin unless you throw something away you really need. Then, you can rummage through the Recycle Bin to salvage that file or folder.

No hard disk space is freed up when a file or folder is deleted off the hard disk drive because it is merely moved from its current location into the Recycle Bin. However, you can tap the Shift + Del key to delete a selected file or folder and keep it out of the Recycle Bin and really free up its disk space. However, you can't restore that file or folder at a later time! This dangerous command is quite useful, however, when you want to delete a huge file or folder that would clog up the Recycle Bin and leave little room for other deleted junk.

# Restore Deleted Files and Folders

Files and folders deleted off the hard disk are placed in the Recycle Bin. You can place them back on the hard disk in their original folders. Here are the steps to restore files and folders:

1. Move onto the Desktop with the Win + D key.

2. Move onto the Recycle Bin icon with the Arrow keys and tap the Enter key to display its window.

   You land on a list box full of discarded files and folders.

3. Move onto the file or folder in the list to be restored with vertical Arrow keys.

4. Now, leap onto the Command Bar with a tap of the Shift + Tab key.

5. Move onto the Restore This Item command with the horizontal Arrow keys and tap the Enter key.

   The file or folder is recovered; it is back home and good as new.

The Command Bar in the Recycle Bin window has another handy command. You can dump out the Recycle Bin at any time when you are very sure you don't want any of its files or folders back or when you don't want others to gain access to those files and folders. Here's how you dump out all the trash permanently:

1. Move onto the Desktop with the Win + D key.

2. Move onto the Recycle Bin icon with the Arrow keys and tap the Enter key to display its window.

   You land on a list box full of discarded files and folders.

3. Now, leap onto the Command Bar with a tap of the Shift + Tab key.

4. Move onto the Empty the Recycle Bin command with the horizontal Arrow keys and tap the Enter key.

5. Respond yes to the confirmation request.

   There's no more trash in the recycle Bin!

6. Press the Alt + F4 key to exit the Recycle Bin program.

The icon on the Desktop for the Recycle Bin changes to an empty wastepaper basket. This icon changes to a partially-full wastepaper basket as soon as a file or folder is deleted.

The Command Bar in the Recycle Bin window has another handy command. It has two versions. If no item is selected in the list, the Restore All Items command appears. If an item is selected in the list, the Restore This Item command appears.

## Adjust the Recycle Bin Size

Vista sets aside a part of the hard disk for your trash, and Vista will fill up the Recycle Bin until no more trash fits. Vista automatically dumps out excess stuff to free up room for more trash. Pieces of trash (discarded files

and folders) are dumped out in the order you tossed them into the Recycle Bin.

You may prefer a smaller or a bigger Recycle Bin. Vista lets you adjust the size of the Recycle Bin. Here are the steps to change the amount of the hard disk drive set aside for temporary trash storage:

1. Move onto the Recycle Bin icon.

2. Pop up its shortcut menu with Shift + F10.

3. Pick its Properties option.

4. Specify the Maximum Size (number of megabytes) you want for the Recycle Bin.

5. Activate the OK button.

# CHAPTER 8
# WINDOW BARS AND PANES

A window in Vista, either folder or explorer (except the Control Panel window), may show an optional Menu Bar and as many as four optional panes. This chapter describes them.

## Optional Window Parts

You can use the Layout menu on a window's Organize button to display or hide four window parts in the *open* window. You can't turn on or off multiple parts with a single visit to the Layout menu--you must access the Layout menu repeatedly. Turn off all four items for a less cluttered window and much simpler keyboard navigation. (This tutorial assumes that they are off!)

An item on the Layout menu is on when checked or when its icon is blue; the item is off when unchecked or when its icon is no longer blue. Just move onto an item and tap the Enter key to change its status. Here are brief descriptions of the four items on the Layout menu.

**Menu Bar**

Places the classic menus: File, Edit, View, Tools and Help above the Command Bar. These menus hold commands that may not be found on the Command Bar.

**Search Pane (Only Explorer Window)**

Placed below the Address Bar, this pane lets you perform more complex searches for files or folders.

**Details Pane (Only Folder Window)**

Placed across the bottom of the window, this pane shows the number of items in the list when no item in the list is selected. It shows details about an item when an item in the list is selected.

**Access Note:** All the information on the Details Pane occurs elsewhere in a more accessible form. Move onto a file or folder and pop up its shortcut menu with Shift + F10. Pick its Properties option and move onto its Details tab. Here, you can read all the details and also make changes.

**Preview Pane**

This feature appears as a vertical pane on the right side of the window. It presents the selected audio or video item, displays the first frame of a selected video file, and lets you play a selected audio file.

**Navigation Pane**

This feature appears as a vertical pane on the left side of the window. Its top half lets you open frequently-used folders, and its bottom half displays a tree view of your folders.

The rest of this chapter discusses most of these window parts in more detail and explains their relevance.

# Menu Bar

You may need to use a command not found on the Command Bar. The desired command might be on the Menu Bar. There are three ways to access the Menu Bar:

 1. When you want to **temporarily** display the Menu Bar in the ***current*** window--tap the Alt or F10 key.

The Menu Bar vanishes as soon as you pick a command from a menu or when you tap either the Esc or Alt key.

2. When you want to **permanently** display the Menu Bar in the ***current*** window--turn it on via the Layout menu on the Organize button, as described above.

3. When you want to display the Menu Bar **permanently** in ***every*** window, follow these steps:

• Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

• Pick the Folder Options item.

   A property sheet with three tab pages labeled General, View, and Search appears.

• Stay on the General tab page; the Tasks group box with two radio buttons has keyboard focus.

• Move onto the radio button labeled Use Windows Classic Folders to activate the Menu bar.

• Move onto the OK button and then tap the Enter key to accept the change.

   You return to the Control Panel window; close it with a press of the Alt + F4 key.

Henceforth, the Menu Bar is back in business in every window, located just before the Command Bar. It looks and works just as it did in XP, but there is more. The two panes, Details at the bottom of the window and Preview at the right of the window, vanish from every window if they were turned on previously. (However, you may turn either back on in any window via the Layout menu on the Organize button.)

**Access Note:** A screen reader can't read either pane, so you may turn them off without regret.

# Navigation Pane

Vista displays this pane by default. You must turn it on or off window by window because there is no global command to handle it in every window. Turn it off in those windows that you frequent for easier window navigation. There's no loss of functionality. You may access your Links folder under your personal folder to access virtually the same items found on the Navigation pane.

## Search Pane

Not every window has a Search Pane, but your personal folder window and the Computer window do. Turn off this pane for a less cluttered window and much simpler keyboard navigation, and rely on the Search command on the right pane of the Start window instead.

# CHAPTER 9
# HELP & SUPPORT WINDOW

This tutorial offers you lots of help on Vista and its various parts. However, you may need help on a topic not covered here or require more details on a covered topic. Microsoft has revamped its Help and Support window so in Vista it actually has many useful help topics and support options. This chapter describes the layout of this window, discusses its keyboard navigation, and presents its most useful options.

Do try out the available Help and Support options, for they present topics you will wish to know about sometime in your Vista career. You can find step-by-step instructions to answer many questions and solve many problems. Moreover, Microsoft will update Vista often and add new features to its programs. For example, Windows Live Mail will eventually replace Windows Mail as Vista's e-mail program. Therefore, Microsoft planned ahead and made Help and Support dynamic. That is, it will change as Vista changes. You will have a constant source of updated information through the Help and Support window.

## Window Layout

Tap the Win + F1 key or pick Help and Support on the right pane of the Start window to launch the Help and Support program and display its program window. Rely on the Alt + F4 key when finished to exit this program and close its window. Its window has its own layout--it doesn't look like a folder or explorer window! Here are the details:

This window has six distinct visual sections from top to bottom. There are three rows at the top of this window followed by a table with two rows, and then a bulleted list with four items and a numbered list with three items. There are two links and two controls near the bottom of this window.

Most options you can ignore until you need them; they are mentioned below so you can decide which options merit your attention now or later.

# Toolbar and Text Box

There are three rows at the top of the window. The top line shows the window title: Windows Help and Support.

The middle line shows Left/Right Arrow buttons on the left, followed by a row of five tool buttons toward the right: Home, Print, Browse Help, Ask and Options.

**Access Note:** These tool buttons can't be reached via the keyboard. However, the three most useful and important buttons possess shortcut keys.

Here are the keyboard shortcuts and the four buttons they activate:

  • **Alt + Home** activates the **Home** button--it takes you back to the main Help and Support window from any other Help and Support window.

  • **Ctrl + P** activates the **Print** button--it displays the Print dialog box so you can print the current onscreen text.

  • **F10** activates the **Options** button--it displays the Options menu, which contains five commands, including **Browse Help.**

The third row has the most useful control in this window, a Search box. This text box gets keyboard focus when you tap the F3 key. You can then type text to search for; tap the Enter key to commence the search.

The best 30 search results are presented in a new window as a table with 30 rows. Move through its rows until you locate a topic of interest and tap the Enter key to display that topic. That topic appears in a new window.

Topic windows look like and behave like web pages. Indeed, they are web pages, and you browse through them as such. Topic windows that have many subtopics often have an expand button at the very top of the window that lets you Show All and Hide All; that is, window content gets extended or reduced. Rely on the Alt + Left Arrow key to close topic windows and return you to the table of topics where you may pick another topic to read or return to the main Help and Support window.

For example, type the two words Play Music in the Search box and tap the Enter key to display 30 topics on how you play music in Vista. You can also type the two words Control Panel in the Search box and tap the Enter key to display 30 topics about the Control panel. In both instances, Alt + Home will return you to the main window.

# Find an Answer

Press the Win + F1 key to display the Help and Support window. This window shows a table, entitled Find an Answer, which has two rows and three columns:

**Row 1: Windows Basics, Security and Maintenance, Windows Online Help**

**Row 2: Table of Contents, Troubleshooting, What's new?**

The title Find an Answer always has keyboard focus when you display the Help and Support window. Start here, as you can receive a lot of valuable information from the many well-written articles. Press the Tab key to move onto the leftmost item in the top row of the table. Pick an item in this table. (Move onto it with the Arrow keys and tap the Enter key.)

**Windows Basics** displays a window with six topics. It covers your computer's parts and functions and describes Windows real estate.

**Security and Maintenance** displays seven topics. It covers the ways to protect your computer and the ways to protect yourself from online predators and hackers.

**Windows Online Help** connects you to the Internet and launches Internet Explorer. You reach a web site where you can learn the latest about Vista.

**Table of Contents** works just like a table of contents in a book. Browse it to find Help topics of interest.

**Troubleshooting** displays six topics. Solutions for many common problems are presented, and there are programs that can diagnose the causes of common problems.

**What's new?** displays 12 topics. Many of the ways Vista differs from XP are mentioned. You are given lots of reasons to buy Vista.

# Ask Someone

This bulleted list has four items. You can ignore all of them. Windows Remote Assistance doesn't do you much good unless you know somebody online who is knowledgeable and willing to help you. Windows Communities are relics from the dawn of the Internet, and they are complicated newsgroups. Microsoft Customer Support Online takes you to the Microsoft Knowledge Base intended for IT professionals; again, this is too complicated

to be helpful. More Support brings up a list reiterating these aforementioned options.

# Information from Microsoft

This numbered list has three items that you can use. They bring you to web pages where other befuddled users posted questions.

# Links and Controls

There is an Ask Someone link and a Connections menu with a shortcut key, Alt + N, at the bottom of this window.

# Window Navigation

You can open the Help and Support window in two ways: Tap the Win + F1 key anywhere in Vista or pick Help and Support located at the bottom of the right pane of the Start window. The table Find an Answer always has keyboard focus when you display the Help and Support window. Repeatedly tap the Tab key to move through its six table elements. Tap the Enter key to pick the selected element.

# Window Keys

Most of the useful options in the Help and Support window possess shortcut keys:

**Win + F1 or Help and Support on the right pane**

An explorer window labeled **Windows Help and Support** appears. Alt + F4 exits this program and closes its window.

**F3**

Lets you place keyboard focus in the **Search** text box. Type your search text and tap the Enter key.

**F10**

Displays the Options menu--it lets you print, browse, alter text size, search the current page, and change settings.

**Alt + N**

Displays the Connections menu--a control at the bottom right of the window lets you get online or offline help.

**Alt + C**

Displays the Table of Contents for Help and Support.

**ALT + Left Arrow**

Lets you move back to the previously read topic.

**ALT + Right Arrow**

Lets you move forward to the next (previously read) topic.

**ALT + Home**

Returns you to the main Help and Support window and closes the current Help and Support window.

**Home or End**

Lets you move to the start or end of the displayed help topic.

**Ctrl + F**

Lets you search for text in the displayed help topic.

**Ctrl + P**

Lets you print the displayed help topic.

# CHAPTER 10
# SEARCH YOUR computer

In Vista, you don't need to remember where a handy command or program resides--in the All Programs list, in the Accessories submenu on that list, or in Control Panel. Also, in Vista, you don't have to recall in which file and inside which folder you put a friend's address. Just have Vista find that command, program, or file for you.

This chapter presents the three common ways to perform a search. You should always rely on the search box below the left pane on the Start window to find commonly used commands, programs, and folders. You

should employ the search box at the top of a folder window to scan through just its files. You should make use of the Search Command to find files throughout your hard drive or in multiple folders.

# Start Search Box

You may want to perform a command, launch a program, or open a folder. Typically in XP, you had to find the command, program, or folder--often quite a chore, but in Vista, you may rely on the Start Search box below the left pane of the Start window to carry out these kinds of tasks. Listed below are common examples of how you should work in Vista in contrast to how you would normally work in XP. Read through them carefully and imagine other ways you may practice these skills.

**Remark:** It's hard to break old XP habits. After I finished this chapter, I wrote the next chapter entitled Protect Your Computer, which discusses your computer's online security. The result was initially a complicated and tortured piece of prose, for I presented XP ways to perform security chores instead of Vista's much easier, quicker ways to do them. (You are spared those initial drafts.) Read the examples below and then practice them and practice them again until you are comfortable with the new ways to work!

# Perform Commands

A handy XP command may no longer reside on the Start window, or a much-used command may reside elsewhere. You may reinstate a banished command or find its new location in Vista. However, you needn't do either.

You may have noticed that the Run Command found in the Start window in XP no longer appears there in Vista. That's because you can type any command in the Start Search box and have it appear in the results list. Try it; type the word run in the search box. That command immediately appears as a search result. Just move onto it and tap the Enter key, then you get the familiar Run dialog box.

You should defrag and cleanup your hard drive every few months to keep it in tip-top working order. So, where are the Disk Defrag and Disk Cleanup commands in Vista? Don't know and don't care. Just type either command, Disk Defrag or Disk Cleanup, in the Start Search box. That command immediately appears as a search result. Just move onto it and tap the Enter key, then you get the command's dialog box.

# Launch Programs

You can reach any program via the All Programs item at the bottom of the left pane in the Start window. However, you can launch the needed program faster via the Start Search box. For example, type *WordPad* in the Start Search box. The program with that name appears in the results list. Just move onto it and tap the Enter key to launch that program.

Often I need the Calculator program when I read math articles online to evaluate a formula. I could, as in XP, pop up the All Programs list, expand the Accessories item, and pick the Calculator program. But, why bother with all of that? Just type the word *calculator* in the Start Search box. The program with that name appears in the results list. I move onto its name and tap the Enter key to launch that program. How convenient!

# Display Folder and Explorer Windows

Folder windows (like Documents and Music) hold your files and other folders; explorer windows (like Computer and Control Panel) display other things (computer disks, groups of related commands or programs). You can reach any folder window or explorer window via the Start window or via a shortcut assigned by you to that window. Alternatively, you can just type the name of the specified window in the Start Search box.

**Remark:** You must type the window name correctly so Vista can recognize it (capitalization doesn't matter). For example, if you type the word Document instead of *Documents* in the Start Search box, you won't reach the Documents window.

# Visit Web Sites

You may type a web address into the Start Search box with a happy result. Internet Explorer launches and will bring you to that web site! You don't need to connect to the Internet or launch Internet Explorer yourself. All the required tasks are performed for you!

# Folder Search

You may know that the sought after file resides in a specified folder window --a song in your Music folder, a letter in your Documents folder, and so on. That information helps, but you have a problem nevertheless when the folder contains hundreds or thousands of files or many subfolders.

There are two ways to make your search task easier. You may reduce the number of items displayed so you have much less to look through, and you may rearrange the items so you can more quickly find the sought after item.

Use the Search box at the top-right corner of the window to filter out unwanted items, and rely on the Column Header Bar to rearrange or sort items. Both methods are handy, and they serve different purposes. Filter items when your list of items is very long and hard to manage. Rearrange items when you want to find the most recent item, the smallest item, and so on.

Display the Start window, open your personal folder, which is listed at the top of the right pane, and open one of your folders. Now you are ready to filter or rearrange its items to make your search simpler and quicker.

## View Files by Specified Search Terms

You may have a folder with hundreds of recipes. So how do you just find those recipes for cakes? You want to hide from view all those items that don't relate to cakes.

You may employ the search box to show only files about cakes. Type the word cake in the search box. Vista goes to work. It hides all files that don't have the word cake in their file names and leaves in view all files that do. You may type a phrase instead of a word to narrow your search. You can type pound cake and have Vista only show files with pound cake in their file names--rum cake recipes are left out of the list. You may even type just part of a word. Type the word *cup* to view files with *cup*cake in their file names.

**Remark:** Only words or parts of words at the start of longer words are matched; that is, words (or parts of words) within longer words are skipped. For example, if you type the word *side* in the Search box, a file with *side*walk in its name is matched, but a file with the word in*side* or re*side* in its name is not.

You may remember a word or a phrase within a file name but not exactly where it occurs--in the middle, near the end, etc. It doesn't matter! Every file name is completely scanned so the word or phrase is matched if it is there. For example, I name every piece of correspondence with the word *letter* and the name of the recipient. Therefore, to view correspondence with Santa Claus, I type *letter* and *Santa Claus* in the Search box. Only files with those three words in their file names are listed.

You may have no matches for the current search text. In that case, no file names are found and the list of results is empty. Try again with different search terms.

Only file names are scanned for your search terms. However, you may extend the scan to file contents. This is handy when you want to know which

files contain your search terms. For example, no file name may contain the terms *angel* and *cake*, but a file may contain an angel cake recipe.

Perform a search. Then a filtered list of file names appears. Also, a Search in File Contents command appears below the list of filtered file names. Activate this command to search through files for the search terms. Click this command with a physical mouse or via a mouse key in a screen reader. Alternatively, employ the keyboard:

1. Move onto the list of filtered file names with the Tab key.

2. Press the End key.

   Keyboard focus moves below the list of filtered file names. (A screen reader will say No Selected Items.)

3. Press the Enter key.

   The list gets updated with the filtered file names together with the names of filtered files.

# View Files by Specified Types

There are different kinds of documents as indicated by their file extensions --the three or four characters that follow the period in the file name. In Vista there are four-character extensions to handle the new file types. By default, file types are hidden from view, nevertheless you can search for them. For example, type in the Search box *.txt to view only text files, *.doc to view only Word documents, *.xls to view only spreadsheets, and *.mp3 to view only music files.

A search by file type is useful only if a folder holds different kinds of files. My math folder only contains Word documents so a search by file type is pointless. However, my Downloads folder holds different kinds of files downloaded off the Internet so a search by file type is handy--I can view just the downloaded pdf files.

**Remark:** You may employ the Folder and Search Options item on the Organize menu to extend or customize your search within the window. This item works like the Folder Options item found in Control Panel. Their options and settings are discussed in the next topic.

# View Files by Specified Date or Date Range

You may not remember the name of a file or what it contains, but you may remember roughly when you created or modified the file. Or, you may want to check which files you worked on in a specified period, say in July 2007. You may search for a file by date in various ways. Use the examples below as model searches.

**Specified Date**

Date: January 1, 2007 and date: 01/01/2007 shows items with that date.

**Specified Month**

Date: July shows items with July dates in the current year;
Date: December 2006 shows items with December dates in 2006.

**Specified Year**

Date: 2006 shows items with dates in 2006.

**Specified Time Interval**

Date: July 1, 2006..September 30, 2006 shows items with dates in July, August, and September 2006. The double period indicates a date range; the first date must occur before the second date. Remember you may employ the Date Modified command on the Column Header Bar to reverse the date order.

**Relative Day**

Date: yesterday, date: today, and date: tomorrow shows items dated that day.

**Relative Week**

Date: last week, date: this week, and date: next week shows items dated that week.

**Relative Month**

Date: last month, date: this month, and date: next month shows items dated that month.

**Dates Before**

Date: <October 2006 shows items dated September 30, 2006 and earlier.

**Dates After**

Date: >December 2006 shows items dated January 1, 2007 and later.

By default, dates are listed with the most recent date at the top of the list and the oldest date at the bottom of the list. For example, December 31, December 30, December 29, and so on. You may reverse the order if you like:

1. Move onto the Date Modified command.

2. Press the Enter key.

   Now items are ordered by this option instead of Name, Size, or whatever.

3. Press the Enter key again.

   This reverses the order.

4. Move back onto the list and check your handiwork.

# View Files by Specified Size or Size Range

You may not remember the name or the date for a file, but you may remember roughly its size. You may search for a file by size in various ways. Use the examples below as model searches.

**Specified Size**

size: 100KB and size: 1mb show files with those sizes.

**Sizes Bigger**

size: >100KB and size: >1mb show files with bigger sizes.

**Sizes Smaller**

size: <100KB and size: <1mb show files with smaller sizes.

# View Files by Multiple Options

You may wish to view certain cake recipes you wrote in a specified period of time. You may employ multiple search options to narrow your search just to those recipes. Use the examples below as model searches.

**File Name and Date**

Rum cake date: December 2006 shows recipes for rum cake with dates in December 2006.

**File Name and Size**

Book size : <1mb shows files with book in their names, which are smaller than 1Mb.

# View Files by Specified Column Header

Usually, the items within a folder window are ordered by their names. However, you can order them by any other column header--Date Modified, Size, and so on. Here's how this works in general.

1. Move onto a column header.

   Other than the header currently used to order the listed items.

2. Press the Enter key.

   The items are now ordered by this column header.

3. You can press the Enter key a second time. This reverses the order.

   For column header Name, A through Z becomes Z through A. For column header Size, biggest through smallest becomes smallest through biggest.

4. Move back onto the list and move to the top of the list.

   Check your handiwork.

**Remark:** You may open a folder window and find items weirdly arranged. It's likely they were reordered. Reorder them by the column header you prefer, and, if necessary, reverse the order.

You can do more with column headers. They have drop-down menus (displayed with the Down Arrow key) which let you sort items and group items. These menus aren't discussed here.

# Search Index

Vista, in its spare time, creates an index of every bit of information in your personal folder as well as in e-mail and offline files. This means that you can type a few words in a search box and find any item in your personal folder that contains that text. You may customize the index so you search through other locations on your hard disk as well. Indexed locations are searched instantly; non-indexed locations are searched very slowly.

You can't turn the search index on or off because Vista needs it to improve the performance of your computer. The index makes it possible for searches to take a few seconds instead of several minutes. Vista indexes your files as you work with them, so they are always indexed properly. Don't index your entire computer because this will make the index too large and then routine searches will slow down. The index requires no maintenance; rebuild the index only when you include or exclude an indexed location or file type.

**Remark:** Rebuild the index if you rename many files at one time so they are indexed just with their new file names. Otherwise, the old file names as well as the new file names will appear in a folder search until the index catches up with your changes.

You can tell Vista what types of files to search through and where to search. For example, search for text just within file names or search through both file names and file contents. Vista will search through file types only if those file types are indexed.

**Remark:** You may skip the rest of this topic unless you need to search through unusual locations on your hard disk or through atypical file types.

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Indexing Options.

A dialog box appears. It shows the number of items currently indexed at the top. (This number changes if files are created or indexed.) A list box labeled **Index These Locations** shows the parts of your hard disk that are currently indexed.

Here are the steps to include or remove a location from the index:

1. Activate the Modify button.

   A dialog box appears.

2. Activate its Show All Locations button.

If user accounts are enabled, the usual User Account Control dialog box appears asking your permission to continue.

3. Activate the Continue button.

Another dialog box appears. It has a tree view labeled Change Selected Locations.

4. Display its various folders, and check those to be put into the index and uncheck those to be omitted from the index.

5. Activate the OK button when finished.

You return to the Index Options window.

Here are the steps to include or remove a file type from the index and decide whether just its file names or its file names and file contents are searched:

1. Activate the Advanced button.

Up pops a property sheet with two tab pages labeled Index Settings and File Types.

2. Move onto the File Types tab page.

3. Move onto its Extension list box.

It has a long list of file extensions (with their descriptions) which you may check or uncheck.

4. Use the vertical Arrow keys to move through this list or type the desired extension.

5. Use the SpaceBar to check or uncheck the selected item.

Near every extension is a pair of option buttons. The button labeled Index Properties Only, means only file names and file attributes are searched. The button labeled Index Properties and File Contents, means both file names and file contents are searched.

6. Use the Tab key to move onto the option buttons, and use the Arrow keys to select the desired option. Use the Shift + Tab key to move back onto the list of extensions when finished.

7. For example, Move onto the doc extension.

There are several extensions that begin with doc; doc itself follows the dll extension.

8. Change its option to include file contents if necessary.

9. Activate the OK button.

A message box appears. You are asked whether you want to rebuild the index.

10. Activate the OK button to continue with the process. Then pick the Close button to continue the process in the background.

# Search Window

Often you will have no idea where the sought information resides on your computer; it could be part of an e-mail message, a document, or song title. You should employ the Search command when:

• You have no idea in which folder to search.

• You want to search multiple folders concurrently.

• You want to search by multiple file names or multiple file attributes.

By default, the Search command employs Indexed Locations. They include all of the folders in your personal folder, e-mail, and offline files. Offline files are those files you get off the Internet; they are placed in your Downloads folder.

Here are the steps to perform a search with this command:

1. Press the Win + F key.

An explorer window appears. The search box has keyboard focus.

2. Type text in the Search box.

You don't need to tap the Enter key after you type your search text because a progressive search occurs with every character you type. After you type text in the Search box, the Command Bar and the List finally make their appearances in this window. Found files, from various locations, are displayed.

3. Tap the Tab key.

You reach the row labeled Show Only with its six "location" option buttons; the leftmost button labeled All is selected --placed in a rectangle with a blue background. This means the search scans through **all** files in **all** folders in indexed locations for your search text.

4. Move through this row of option buttons with Arrow keys.

   The current button is selected and the search is restricted to that location. That is, only items from that location appear in the view. For example, let's say I want to find those pictures taken on New Year's Eve, 2006. I type date: December 31, 2006 in the Search box. Vista immediately shows all my files with that date. Then, to limit it to only pictures, I can select Picture on the Show only toolbar.

5. Tap the Tab key to move off this row of buttons and onto the Advanced Search expand button.

   You can usually ignore this button; instead, type date and size commands in the Search box. (This button and its options are discussed below.)

6. Tap the Tab key twice. You move onto the Command Bar and then, with another tap of the Tab key, you move onto the list of search results.

**Remark:** Recall that file names may be arranged in horizontal rows (paragraph style), vertical columns (newspaper style), or in a single vertical column. You can pop up the Menu Bar with a tap of the Alt key and use its View menu to pick a different arrangement for the list, if desired.

# Advanced Search - Its Expand Button

Often a window has options, which are used very infrequently, or only by advanced users. Therefore, to minimize explorer window clutter, these options are hidden until they are needed. You display them via an expand button which shows or hides them. Move onto an expand button and tap the SpaceBar key to toggle (show or hide) its options.

This window has an expand button labeled Advanced Search. Move onto it via the Tab key and tap the SpaceBar key to show or hide its options.

**Access Note:** A screen reader may announce Show or Hide when you move onto an expand button so you know its state. The announcement Show Advanced Filters means the options for the Advanced Search button are currently concealed from view, and the announcement Hide Advanced

Filters means the options for the Advanced Search button are currently available.

# Advanced Search - Its Options

Move onto the control labeled Advanced Search and tap the SpaceBar key to show them. They are now visible and available for use. Just tap the Tab key to move through them.

Three drop-down lists are presented on the left. The top item, Location, lets you specify where to search for the sought files. The middle item, Date, lets you specify a date or range of dates for the files. The bottom item, Size, lets you specify a size for the file.

# Search by Location

Vista cleverly puts your personal files only in your personal folder. This makes it simple for you to find your own files. Just go to your personal folder and type text in its Search box.

There are occasions when you may want to find files elsewhere, perhaps on a CD or DVD drive or on a removable USB drive. The Location option tells Vista where to search. This is a list box that reveals seven or more possible search locations on your computer. By default, a search occurs only in Indexed Locations on your hard disk, but you can extend a search to the entire hard disk or restrict it to a different disk drive. However, indexed locations on your hard disk are usually the best places to search for your files because they are the places where you most likely stored them. You can extend your search when it fails to find your files in those places. Use the location called Everywhere to perform a thorough search of your entire computer when that happens.

# Search by Date

This option consists of three controls in a row. The left list box (labeled Date) tells Vista when you handled the files. It has three items: any, date modified, or date created. The middle list box (unlabeled) lets you specify a date. It has four options: any, now, before, or after. The right list box shows the current date, and is grayed out when "any" is selected in the middle list box. Picking a different option in the middle list box enables it, allowing you to select a date from a drop-down calendar.

# Search by Size

This option consists of two controls in a row. The list box on the left (labeled Size) tells Vista what size files to search for. It has four options: any, equals, is less than, or is greater than. The text box on the right (unlabeled) is grayed out when "any" is selected in the Size box. It is enabled otherwise, allowing you to enter a specific file size.

# Search by Attribute

This option consists of three text boxes in a row. You can fill in: Name, Tags, and Authors. That is, you can limit your search by file names, file tags, or file authors. Only files with all the specified attributes are listed. Here are the details:

Name Text Box

Search for a file by its file name by typing all or part of the filename in this text box. You can type the asterisk (*) character to stand for one or more wild-card characters in the filename, and you can type the question mark (?) character to stand for individual wild-card characters.

Tags Text Box

Search for a file by the tags you assigned to it. Type its tags into this text box.

Authors Text Box

Search for a file by a particular author. Type the author's name in this text box.

# Search by Non-Indexed Locations

A check box on the far left (below the date option), lets you Include Non-Indexed, Hidden, and System Files. That is, you can extend the search to areas on your hard drive where only experts should go--Hidden Files and System Files.

# Search Now

First enter the Advanced Search options you desire, and then activate the Search button with the Alt + R key. Vista performs your search again, now with your standard options as well as your advanced options in effect.

## Control Panel Search

Control Panel, in Classic View, shows a list of 49 items. These items have many individual options, settings, and commands. You may find it difficult to locate just the right feature. For example, where do you change screen resolution or set speaker volume?

Control Panel has a search box at the top of its window on the right. As mentioned earlier, it works properly in Category View but doesn't work well in Classic View. You can pick the Category View, use the Search box, and ignore the rest of the window clutter.

Usually, Vista lets you name a feature in several different ways. You may type any of the words--display, monitor, resolution, screen--in the Search box to reach the screen resolution settings. In addition, you can type sound, audio, or volume to find the Sound settings.

# Search with Keywords Optional

The search box at the bottom of the Start menu and at the top of every window filters out items that don't match the text you type. There are occasions, however, when you will want to be more precise and restrict your searches in various ways. There are keywords, always typed in upper case, which let you refine your searches. Read the examples of search text and their descriptions and employ similar searches when the need arises.

AND --

finds files that contain two specific words, whether together or apart. For examples, squares AND cubes; annual AND convention.

NOT --

finds files that contain a specific word, but not a different specific word. So, annual NOT convention finds files that only contain the word annual and not the word convention.

OR --

finds files that contain either of two specific words. So, squares OR cubes finds files that contain either or both words.

Double Quotation Marks--

finds files that contain the exact text within the quotation marks, e.g., "annual Star Trek convention."

# Search Options Advanced

You are able to customize how and where Vista searches for stuff as described in the prior topic. You can also specify whether you want to search throughout file names and file content or just throughout file names and whether to include subfolders or find partial matches. You can set options to include system directories or compressed files for non-indexed searches. You can mostly ignore this topic unless you like to play with infrequently used search options.

All of these options are on the Search tab of the Folder Options property sheet. Here are the steps to reach this tab page:

1. Display the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Folder Options.

   A property sheet with three tab pages labeled General, View, and Search appears.

3. Move onto the Search tab page.

   This tab page has three main sections arranged vertically and labeled: What to Search, How to Search, and When Searching Non-Indexed Locations.

4. Activate or deactivate the desired option as explained below.

5. Move onto the OK button and then tap the Enter key to accept the change.

   You return to the Control Panel.

6. Tap the Alt + F4 key to exit this window.

Now, pop up the Search tab page and read about its options in the subsections below.

## What to Search

Hard drives and removable drives are now huge and hold the tens of thousands of user documents, e-mails, pictures, and music tracks that users accumulate over time. Thus, Microsoft has made the ability to search for stuff a major feature throughout Vista. Vista, in its spare time, creates an

index of every bit of user information on your computer. So, you can type a few words--in a file or folder name, in the subject line of an e-mail, in a letter or document, in the title of a photo or song--and find it in a few seconds. You can customize a search so you find just the right piece of information.

There are three radio buttons in this section that let you specify where on your hard disk to search for files. (1) In indexed locations, search file names and contents; in non-indexed locations search for names only. (2) Search in file names and contents. (3) Always search file names only. Move onto the group of radio buttons with the Tab key, and use the Arrow keys to select the desired option.

**Remark:** File contents aren't searched as expected. Only the contents of text-based files are in fact searched. Searches don't find text within Word documents--a major limitation for those who rely on Microsoft Word.

Searches conducted in indexed areas of the hard disk are very fast; searches conducted elsewhere are very slow, may take hours on a full, large hard disk. Pick option one (1) for quickest searches.

# How to Search

There are four check boxes in this section that let you specify how searches are conducted, three of which are most useful. Alt + S toggles the check box labeled Include Subfolders. Typically, you want to search through subfolders. Alt + P toggles the check box labeled Find Partial Matches. Typically, you want to find them. Alt + D toggles the check box labeled Don't Use the Index. Only employ this option when you can't find your file by any other means, for it will scan your entire hard disk and may take hours.

# When Searching Non-Indexed Locations

There are two check boxes in this section that let you specify how searches are conducted in non-indexed locations. Alt + Y toggles the check box labeled Include System Directories. Employ this option only if you understand that stuff. Alt + C toggles the check box labeled Include Compressed Files (Zip and CAB).

# Restore Search Settings

Make a mess of the search settings? Never fear! You can return them to their original values. Move onto the button labeled Restore Defaults, and activate this button to put all search options back to their original settings.

# CHAPTER 11
# PROTECT YOUR COMPUTER

The online world of the Internet is a wonderful place to locate old friends and schoolmates, meet new friends, join discussion groups and take courses, and look up information on any imaginable topic. It is also a place where mean-spirited individuals try to harm you and your computer just for the fun of it, and where thieves try to steal money or personal information from you. Vista does its best to protect your computer from malicious persons and programs, and protect you from schemes and scams. This chapter describes the various ways Vista keeps your computer, your kids, and you safe. There's nothing for you to do except make sure the safeguards are turned on! Most of the material herein will help you later on when you need to adjust security options--when you install new software for example.

## Security Center

Security Center lets you turn on and adjust your computer's four main defenses--Windows Firewall, Automatic Updates, Malware Protection, and Other Security Settings--and tells you whether they're on or off. All four defenses should be up and running for maximum safety because they protect you against different things.

  1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

  2. Pick Security Center.

     It displays a window that shows your computer's security status. The main portion of this window has four buttons listed vertically along its right side. They let you turn Vista's four major protections on and off. Along the left side of this window is a vertical panel that allows you access to more options--**leave these options alone unless you thoroughly understand them!**

The window for the Security Center is visually a confused mess and difficult to work with. Screen readers may fail to read the various parts of the window correctly or at all. Therefore, you should rely on different windows

in Vista to access and adjust your computer's defenses. These are Windows Firewall, Windows Update and Windows Defender.

# Windows Firewall

Telemarketers run programs that sequentially dial phone numbers until somebody answers. Computer hackers run similar programs that automatically try to break into every computer that's connected to the Internet. Broadband Internet users are especially vulnerable because their computers are always connected to the Internet. That increases the likelihood that hackers will locate them and try to exploit any available vulnerability in Vista or Internet Explorer.

Windows Firewall goes to work for you in two ways. It doesn't let your computer send malicious software to other computers, and it stands between your computer and the Internet and prevents connections by unknown programs. There are occasions, however, when you want to allow unexpected connections--you may wish to play an online multiplayer game or to share music or files through a peer-to-peer connection. You may add programs like these to your Windows Firewall list of allowed programs.

You can skip the Security Center and go directly to the Windows Firewall program in Control Panel.

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Windows Firewall.

   A window appears with multiple links. Two of them display helpful information as questions about the Windows Firewall, and they are labeled:

How does a firewall help protect my computer?

   What are network locations?

   Two other links allow you to activate and work with this program, and they are labeled:

Turn Windows Firewall On or Off
Change Settings
**Remark:** These two links bring up the exact same property sheet with the same three tab pages, so you may use either link.

No link has keyboard focus; press the Tab key to place focus on the Change Settings link. Repeated taps of the Tab key move through five links, but there are more links. Press the Down Arrow key, while over the Turn Windows Firewall On or Off link, to reach three more links:

Allow a program through Windows Firewall
Security Center
Network Center

Activate the link Turn Windows Firewall On or Off. Vista displays a dialog box that asks your permission to continue if User Account Control is enabled. Pick Continue or enter a password for an Administrator account. Then a property sheet with three tab pages labeled General, Exceptions, and Advanced appears. A few of their handy options are discussed next.

There are two controls of interest on the General tab page. There's a pair of option buttons. The option button labeled **On** activates the Windows Firewall program. It is selected by default. Most programs are blocked by Windows Firewall. Use the option button labeled **Off** to turn off the Firewall program only when you wish to run a different firewall program--perhaps a firewall program that comes with your antivirus program. The check box labeled Block All Incoming Connections prevents all unsolicited attempts to connect to your computer. Invoke this option before you connect to a public network in a hotel or at an airport for maximum protection while online. You can still reach most web pages, send and receive e-mail, and send and receive instant messages. (You are not notified when Windows Firewall blocks programs.)

There are four handy controls on the Exceptions tab page: Enable an exception, Add program, Add port, and Notify Me When Windows Firewall Blocks A New Program.

**Enable an Exception:**

Move onto this list with the Tab key. Move through its items with the Arrow keys. Press the SpaceBar key to check or uncheck an entry. Move onto the Apply button with the Tab key when finished and press the Enter key to accept your changes. This list shows programs and other items that are normally blocked.

**Add Program:**

To unblock programs not found on the Enable an Exception list, move onto the Add Program button and press the Enter key; a dialog box appears showing a list of your programs. Move onto a program in the list with the Arrow keys and then activate the OK button to have that program added to

the allowed list. Go back to the Enable an Exception list and confirm that the program now belongs to the list and is checked.

**Add Port:**

You may wish to join an online game that has multiple players. That kind of game sends huge amounts of data to the players. Data enter and leave your computer through a port. Often, a game will pick the proper port on all computers involved in the game. Occasionally, you will come across a game that requires that you manually pick the proper communication port. Check with the game organizer, manufacturer, or on its box or in its manual to determine which port the game requires. Make sure you assign the correct port to allow the program to work. To do so, activate the Add Port button; a dialog box appears. Enter the port name and the port number and select the correct protocol; activate the OK button.

**Remark:** A program runs only when you need it, but a port stays open all the time. Deactivate any port no longer used so you minimize possible intrusions by online hackers.

**Notify Me When Windows Firewall Blocks A New Program:**

The check box labeled Notify Me When Windows Firewall Blocks a New Program, displays a message that lets you know that the Windows Firewall may be the problem when a program doesn't work properly. Make sure that this check box has a check.

**Remark:** I received the notification: "Internet Explorer has stopped working. A problem caused the program to stop working correctly. Windows will close the program and notify you if a solution is available." I closed this window and received no solution. (See next **Remark**.)

Make a mess? Don't worry. Select the Advanced tab and activate the Restore Defaults button. Pick the Yes button and then activate the OK button. Windows Firewall removes every change and lets you start over.

**Remark:** Here, Microsoft does something less than useful. Windows Firewall removes Internet Explorer from its list of allowed programs when you restore the defaults; this means you can't get onto the Internet. (This was the cause of my problem mentioned above.) You must add it back to the list of allowable programs to make it work again.

You are finished with Windows Firewall for the moment. You may explore the rest of its options later on at your leisure or when you need them.

# Windows Update

Microsoft releases updates to Vista and Internet Explorer regularly to keep Windows users safe and online hackers at bay. Microsoft can update your computer's software whenever you go online to check e-mail or to browse the Web. Updates are downloaded and installed automatically for you. Occasionally, you are asked to restart your computer to make the updates operable; most times, you are unaware of the update process.

You can update Vista manually whenever you like. To do so, skip the Security Center and go directly to the Windows update program in Control Panel.

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Windows Updates.

An explorer window appears that lets you check and change your update status.

The main portion of this window has two links: View Available Updates and View Update History. Keyboard focus is initially on View Available Updates. Tap the Tab key repeatedly to move onto the Check for Updates link. It appears as the first of five links in a vertical panel along the left side of the window. The five links are labeled: Check For Updates, Change Settings, View Update History, Restore Hidden Updates, and Updates: Frequently Asked Questions. The two most useful of them are Check for Updates and Change Settings. Rely on them to keep Vista current and to make any modifications.

Check for Updates connects your computer to the Internet and goes to the Microsoft web site where Windows Updates live. You pick the updates you want, and they are downloaded and installed for you.

Change Settings lets you specify how and when your computer gets updated. Make sure that you pick Install Updates Automatically. Make your changes and then pick OK. Typically, you won't make any changes. However, night owls might want to change the 3 a.m. automatic installation time to a more convenient time for them. Experienced Vista users may pick the option--Download Updates But Let Me Choose Whether to Install Them--so they may look at the incoming updates before they install them. (Ignore this option if you aren't an IT professional!)

# Windows Defender

Spyware means software that monitors your computer habits. Often, this software gets installed on your computer without your permission. It may merely gather harmless data about you so online enterprises can market stuff to you that relates to your needs and preferences. It also can be software that gathers data about your computer and Internet connection so, later on, it can invade and destroy your computer files or take your computer over and use its resources for nefarious purposes. Windows Defender helps you protect yourself against unwanted spyware.

**Remark:** PC World reviewed various spyware programs in its October 2007 issue. Windows Defender performed poorly on active malicious software and did well with unwanted adware programs. Spyware Doctor from PC Tools received the highest performance ratings in lab tests.

Its onscreen text tells you the state of your computer.

**Access Note:** Use your screen reader's mouse keys to read the onscreen text.

You can skip the Security Center and go directly to the Windows Defender program in Control Panel.

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Windows Defender.

   A window appears with this row of buttons along the top: **Home**, **Scan** and **Scan Options (split button), History, Tools, Help**, and **Help Options (split button)**. Keyboard focus is on the Home button.

Activate the Scan button to commence a search and destroy mission. Windows Defender goes to work; it scans your hard disk for spyware and other malicious software. The scan may take a while; just wait until it finishes. You get a report and are told what to do next. Hopefully, you get the message: "Your computer is running normally." Follow the instructions when you get a list of problems instead.

# Parental Controls

You can protect your computer from malicious or careless users and protect users from online predators and unseemly web content and online behavior. You accomplish this with properly-managed User accounts and account restrictions called Parental Controls--although they are able to control the

misbehavior of unruly roommates, other family members, and mere acquaintances as well.

You must initially assign user passwords to all User accounts with administrator privileges; otherwise, other users with standard accounts could enter an administrator account and remove any imposed restrictions on their accounts. So, assign passwords to all administrator accounts and make a Password Recovery file or disk just in case you forget the passwords and users are locked out of their accounts forever. Assign standard accounts to all users you want to restrict with Parental Controls. Parental Controls let you dictate what users can do on your computer and where they can go on the Internet, and you may monitor all computer and online activities. You can also restrict the amount of time users may logon, specify which web sites they may visit, and even specify which programs they may launch.

You can skip the Security Center and go directly to Parental Controls in Control Panel.

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick Parental Controls.

An explorer window appears listing all User accounts. Vista lets you apply controls only to a single User account at a time, so you need to perform this process separately for every User account. Pick the User account you want to restrict, then the Controls screen appears. The next few subtopics take you through each section of the Controls screen.

# Turn Parental Controls On or Off

The Parental Controls area presents two option buttons, letting you turn user monitoring on or off. It's a handy way to turn on restrictions when your suspicions are aroused or turn them off when they're not needed.

# Activity Reporting

This area also contains on and off option buttons. When "on" is selected, it tells your computer to monitor users. Later, when you select "View Activity Reports" in the adjacent section of this window, you will bring up the Activity Viewer window. It shows the activity of every User account on your computer. You can view lists of everybody's visited Web sites, downloaded files, logon times, played games, etc.

# Windows Settings

This area contains four options to choose from: **Windows Vista Web Filter, Time Limits, Games**, and **Allow or Block Specific Programs**. When any of these options is selected, a new window opens that enables you to indicate your preferences for this User account.

# Windows Vista Web Filter

Activate the **Windows Vista Web Filter** link to indicate which web sites a user may visit, and which sites will be blocked. To do so, activate the "Edit the Allow and Block List" link on the new window that appears. There, you can punish your child by keeping her off of MySpace.com for one week, for example. For ultimate control, block every web site by selecting the "Only Allow Websites Which Are on the Allow List" box on the previous screen, and then add a few safe sites to the allowed list.

The "Block Web Content Automatically" area comes set to Medium, meaning Internet Explorer blocks sites containing mature content, pornography, drugs, hate speech, and weapons. Switch it to High to block everything not specifically designed for children. Alternatively, switch it to Custom and pick and choose specific categories you'd like blocked from your child's view. Be aware, however, that Web filters aren't 100 percent accurate, and some unwanted sites will always slip through.

You may also restrict file downloads. Pick whether to allow file downloads and then pick OK. This final box lets you stop your child from downloading files, an easy way to keep them from downloading and installing programs without your knowledge. However, checking this box may also keep them from downloading files needed for schoolwork.

# Add Other Restrictions

You can add restrictions on time, games, and programs. This category lets you block specific things on your computer--rather than on the Internet.

**Time Limits:** This option brings up a grid, letting you pick the hours when your child should be restricted from using the computer. Here's where you can make the computer off-limits after bed time, for example.

**Games:** You may allow or ban all games here, restrict access to games with certain ratings (ratings appear on most software boxes), and block or allow specific games.

**Allow and Block Specific Programs:** Here's where you can keep the kids out of your checkbook program, as well as particular games. You can block all programs, only allowing access to a few. Alternatively, you can allow access to all but a few programs.

Finally, pick OK; you are finished and returned to the previous window.

# Virus Control

Computer viruses can get into your computer via e-mail programs, screen savers, background themes, toolbars, and through other Windows add-ons. Nowadays, most computer manufacturers include a trial version of an antivirus program. Try it out, or buy an antivirus program that you prefer. Make sure that it runs automatically in the background. If you don't have an antivirus program, you can go to the Security Center and pick the "Find a Program" button to get a list of free trial offers online. Alternatively, you can go to your favorite computer outlet and have its staff make a recommendation. You can even buy an antivirus program and subscription plan directly from Microsoft Corporation.

Here are a few ways you can protect your computer from virus infections. Make sure your antivirus program scans all downloads, e-mails, and instant messages. Only open file attachments that you expect. Call or e-mail persons that sent you unexpected file attachments before you open them to confirm that they really sent them! Make sure that your virus program has the latest scoop about current viruses; that is, run your virus program's update tools weekly. (Your virus program will detect and destroy only the older viruses, not the newest ones, without the most current virus definitions installed. The newest viruses spread most quickly and cause the most harm.)

Don't run two virus programs at the same time because they will likely conflict and cause computer troubles. Uninstall your current virus program before you install another.

If you think you may have a virus, immediately run your virus program! If you don't have an antivirus program, unplug your computer's network or telephone cable and head to the store and buy an antivirus program. Better yet, bring your diseased computer to a repair place that has the know-how and tools to bring your computer back to health. (Run an antivirus program before you reconnect your computer to the Internet--so your computer doesn't infect other computers.)

# CHAPTER 12
# MANAGE YOUR FILES and FOLDERS

Files, folders, and disks have commands located in three places: (1) on Command Bars, (2) on Organize buttons, (3) on shortcut (context) menus. Just about every item in Vista--file, folder, drive, shortcut icon, desktop part--has its own shortcut (context) menu. You can display that menu only when that item is selected. This chapter presents the commands found only on shortcut (context) menus and discusses their shortcut keys when they exist.

## List Commands

The list of items in a window (folder or explorer) has its own shortcut (context) menu. You can display that menu only when no items are selected within the list. No items are selected when you initially display a window. Move in the list with navigation keys, then the current item gets selected. You must tap the Ctrl + SpaceBar key to deselect it before you try to pop up the shortcut menu for the list.

Follow these steps to display this menu:

1. Open a window, folder or explorer.

2. Deselect any highlighted item with the Ctrl + SpaceBar key if necessary.

3. Pop up its shortcut (context) menu with the Shift + F10 key.

Its menu options--View, Sort By, Group By, Stack By, and New--display menus of commands. View lets you pick one of the seven views for the list. (It works just like the View menu on the now hidden Menu Bar.) Sort By lets you rearrange the contents of the list. Group By lets you place the contents of the list in groups. Stack By lets you place the contents of the list in stacks. (They work just like their counterparts on the Column Header Bar menus.) By far, the commands on the New menu are the most useful. They let you create folders and documents of various kinds. Here are descriptions of two of these commands.

***Folder Command***

Folders help you organize your personal files. For example, create different folders within your Documents folder to hold different kinds of documents such as term papers, personal correspondence, business letters, and so on. Folders within other folders are often called subfolders; they look and work just like the handful of folders already in your personal folder. Here are the steps to put an empty, new folder into your Documents folder to hold Favorite Recipes:

1. Open your personal folder located at the top of the right pane in the Start window.

2. Open your Documents folder.

3. Pop up the shortcut menu for the list.

4. Pick the New option. Press W twice, and then press the Enter key.

   You are presented with a text box with New Folder as its default text.

5. Type Favorite Recipes as the folder name, and press the Enter key.

Now you have a folder within your Documents Folder named Favorite Recipes, and you are ready to place favorite recipes into that folder.

How do you do that? Well, you could launch your word processor and go to work, but remember, programs like that routinely place documents into the Documents folder. Therefore, that doesn't work. You need to create a new, empty document in your Favorite Recipes folder.

### *Microsoft Word Document Command*

Here are the steps to put an empty, new Word document into your Favorite Recipes folder:

1. Move onto your Favorite Recipes folder in the list with Arrow keys and press the Enter key.

   Its folder window opens, and you are placed in that window.

2. Pop up the shortcut menu with Shift + F10 and press W twice.

3. Press the Enter key to display the New menu.

4. Press M and then the Enter key to launch Microsoft Word.

You are presented with a text box with New Microsoft Word Document as its default text.

5. Type Spaghetti Recipe as the file name, and tap the Enter key.

   Now you have a blank document within your Favorite Recipes folder named Spaghetti Recipe, and you are ready to write up your recipe.

6. Move onto the Spaghetti Recipe item and tap the Enter key.

Microsoft Word launches and opens that blank document for you.

**Remark:** You can reduce the number of required steps with a shortcut placed on your Desktop. Make a shortcut for your Favorite Recipes folder. Rely on that shortcut to immediately go to that folder and then follow the steps to create a new, empty recipe document.

# File and Folder Commands

Move onto a file or a folder in a list and press the Shift + F10 key. A shortcut (context) menu pops up. Most options are commands; a few are submenus. Here are descriptions of the most useful commands.

**Remark:** There are commands that apply to both files and folders, and there are commands that only apply to files or only apply to folders. (You can print only files; you can explore only folders; you can open both of them.) So don't panic when you pop up a shortcut menu and can't find a command described below.

### *Open Command*

This command opens the window for the selected folder or launches the program for the selected file.

Example 1: Move onto the Documents folder, and pick Open on its shortcut menu. (Alternatively, just tap the Enter key.) This displays the contents of the Documents folder.

Example 2: Move onto a Microsoft Word document with the Tab key, and pick the Open command on its shortcut menu. (Alternatively, just tap the Enter key.) The Word program is launched.

### *Open With Command*

This command, only found on the shortcut menu for a file, lets you pick a different program to open the selected file. For example, employ this command when you want to open a text document with Microsoft Word instead of Notepad.

### Print Command

This command, only found on the shortcut menu for a file, lets you print the selected file. (Alternatively, just tap the Ctrl + P key.) Of course, you must have a printer. No printer installed? Then this command displays a dialog box, which lets you save the document as a XPS document.

### Delete Command

This command lets you remove the selected file or folder and throw it into the Recycle Bin. (Alternatively, just tap the Del key.) Shift + Del also removes the selected item but doesn't place it in the recycle bin. Thus, you save room in the Recycle bin, but Shift + Del permanently removes an item; there is no way to get it back!

### Rename Command

This command lets you change the name of the selected file or folder. (Alternatively, just tap the F2 key.) You are presented with a text box with the current name as its default text. Just type the new name for the item and tap the Enter key.

### Search Command

This command (not available in Vista SP1) lets you perform a more extensive search in the selected folder. You must rely on the Search Command Win + F discussed in Chapter 10.

### Properties Sheet

This item has four tab pages: General, Security, Customize and Detail for a file; General, Sharing, Security, and Customize for a folder. Rely on the Details tab page instead of the Details pane in Folder and Explorer windows when you want to know details about a file, folder, or drive. File details include name, type, location (its path), size, date created, date modified, date accessed, and attributes. Folder details include name, type, location (its path), size, number of files, date created, and attributes. Drive details include name, type (local, removable), file system (NTFS or FAT), used space, free space, capacity (size in MB or GB), and drive letter.

### Pin to Start Menu Command

This command, only found on the shortcut menu for a file, places a shortcut for the selected file in the left pane of the Start window.

### Add to Quick Launch Command

This command, only found on the shortcut menu for a file, places a shortcut for the selected file in the Launch Area of the Taskbar.

### Send To Menu

This option displays a submenu. Its items are locations where you can send a file or a folder. Your menu may include other items--Bluetooth connection, Fax, Removable Disk, and so on. Here are brief descriptions of its typical options:

### Compressed (Zipped) Folder

This feature makes a zipped copy of the selected item. The item and the zipped version have the exact same name, only the zipped copy has Zip as its suffix (alias extension). File suffixes are hidden by default so the original item and the zipped file look alike; the zipped item is smaller so you can tell them apart that way. Alternatively, display file suffixes to avoid possible confusion. (Select the appropriate check box on the View tab from the Folder Options property sheet in Control Panel.)

### Desktop (Create Shortcut)

Puts a shortcut for the selected item--file, folder, or drive--on your Desktop. Use that shortcut whenever you want to open that item.

### Documents

This feature places a copy of the selected item in your Documents folder. (You don't need to use the Copy and Paste commands.)

### Mail Recipient

Attaches a copy of the selected item--file or folder--to an outgoing e-mail message so you can send that item to somebody.

### CD or DVD or Removable Drive

This feature places a copy of the selected item onto that drive. This is a convenient way to back up an important item. (All your drives with removable media are listed on this menu.)

### *Create Shortcut Command*

A shortcut is a little file that tells Vista where a program, file, folder, disk drive, or printer resides on your computer. You may place a shortcut on Your Desktop, on your Start menu, or in any of your personal folders. (You can distinguish a shortcut from the original item by the little arrow that appears on its icon.) Here are the steps to create a shortcut:

  1. Open the folder that contains the item for which you want a shortcut.

  2. Move onto that item and pop up its shortcut menu with the Shift + F10 key.

  3. Pick the Create Shortcut command.

The shortcut appears in the same folder as its item.

Now, cut and paste the shortcut to move it to the desired location. Here's how you do that:

  1. Select the shortcut to be moved and pop up its shortcut menu with the Shift + F10 key.

  2. Pick the Cut command.

  3. Move onto the desired location--another folder, the Desktop, and so on.

  4. Pop up the shortcut menu with the Shift + F10 key.

  5. Pick the Paste command.

    The moved shortcut is placed right there.

You may move onto that shortcut at any time and tap the Enter key to open its associated item--file, folder, or program.

**Remark:** Read the topic Desktop Shortcut Keys in Chapter 3 if you want to assign a shortcut key to your shortcut. (A keyboard shortcut is a combination of keys pressed together to perform a task. You may use it anywhere, whereas you can only use a shortcut icon where it resides.)

### *Copy as Path*

This command finds the path on your computer for the selected item and places it onto the Clipboard. Employ this command when you need to place the exact and full path for a file or a folder into a text box. Do this:

1. Move onto a file or a folder.

2. Pop up its shortcut menu.

3. Pick the Copy as Path command.

4. Move onto the text box where the path should go--in an e-mail message, in an Internet Explorer text box, etc.

5. Use the paste command to copy the path data from the Clipboard into the text box.

This feature in Vista (absent in XP) makes it easy to copy path commands. You don't need to retype them or even understand much about them.

### Open Command Window Here

This command harks back to DOS days--sure to please old-timers and expert users, as well as those who want a list of folder items to review as a text or Word document. This command, only found on the shortcut menu for a folder, displays a window wherein you may type a venerable DOS command. For example, type "dir/b/o:n *.* >FileList.doc" and tap the Enter key to save a list of the items in the folder. Remember to type Exit and tap the Enter key to close the DOS command window and return to the folder window. FileList.doc now resides in that window as a separate document which you can print, braille, email, etc.

# Copy, Cut, and Paste Commands

These three commands are used in pairs. They let you copy or move files and folders between folder windows and between your computer and removable media.

# Copy and Paste Procedures

Copy and Paste make a copy of a file or folder in a window and put the copy into another window. Do this:

1. Open a folder window.

2. Move onto a file or folder.

3. Pop up its shortcut menu.

4. Pick the Copy command.

Vista puts a copy of that file or folder on its Clipboard.

5. Open a different folder window.

6. Pop up its shortcut menu.

7. Pick the Paste command.

Vista takes a copy of that file or folder off its Clipboard and places it into this window.

Now, that file or folder resides in two different windows.

## Cut and Paste Procedures

Cut and Paste moves a file or folder between windows. Do this:

1. Open a folder window.

2. Move onto a file or folder.

3. Pop up its shortcut menu.

4. Pick the Cut command.

Vista puts a copy of that file or folder on its Clipboard.

5. Open a different folder window.

6. Pop up its shortcut menu.

7. Pick the Paste command.

Vista takes a copy of that file or folder off its Clipboard and places it into this window.

Now, that file or folder resides in a different window.

## Copy, Cut, and Paste Keys

You must perform lots of steps when you copy or move a file or folder with the Copy, Cut, and Paste commands. Luckily, there are shortcut keys that greatly simplify the process. Do this:

1. Open a folder window.

2. Move onto a file or folder.

3. Tap the Ctrl + C key to Copy or tap the Ctrl + X key to Cut.

   Vista puts a copy of that file or folder on its Clipboard.

4. Open a different folder window.

5. Tap the Ctrl + V key to Paste.

   Vista takes a copy of that file or folder off its Clipboard and places it into this folder window.

Now, you have copied or moved the file or folder between folder windows.

# Replacement Dialogs

It's a good idea to have a backup copy of an important file--especially before you alter its content extensively. Here are the quickie steps to make a copy of a file:

1. Open a folder window.

2. Move onto the desired file.

3. Tap the Copy key, Ctrl + C.

4. Tap the paste key, Ctrl + V.

Now this folder window shows the original file and a copy of that file. They have the same file name, but the word copy follows the file name in the backup version. For example, the copy of the Quarterly Report is named Quarterly Report - Copy.

Do you want multiple backups of an important file in the same folder window? Well, just tap the paste key again. A second copy gets placed in the folder window and is named Quarterly Report - Copy (2).

Vista takes a slightly different approach when you copy files between folder windows. It checks whether a file with that file name already occurs in that folder window and displays a dialog box with three options when it does: Copy and Replace, Don't Copy, and Copy But Keep Both Files. Move onto a button with the Tab key; press the SpaceBar key to activate that button. (A press of the Enter key doesn't work although it should.)

# Drive Commands

There are a few commands that only apply to disk drives; they are discussed here as a group. Commands that let you play and copy your music are discussed later in this tutorial.

The shortcut (context) menu for a drive is dynamic. The items listed depend on whether a disk is, or isn't, inserted into the drive. For example, **Play** appears on the menu when a disk is present, but not when a disk is absent.

### *Burn Command*

Vista can read and rewrite information to a CD and a DVD using a fireproof process called **Disk Burning**. XP could burn CDs but not DVDs. It is possible to tell whether an older drive can burn your disks. Remove any disk from a drive, display Computer (My Computer on XP), and look at the icon for your CD or DVD drive. The designation DVD/CD-RW means you can read and also rewrite CDs but only read DVDs on that drive. The designation DVD-RW, on the other hand, means you can read and rewrite both CDs and DVDs on that drive.

There are two types of CDs; CD-R (short for CD-Recordable) and CD-RW (short for CD-Rewritable). CD-R disks are inexpensive and let you record music or files; that is, you can copy music or data onto them until they fill up. CD-R computer disks are like your music disks; you can't erase and reuse them! CD-RW disks are, on the other hand, expensive and let you erase and rewrite them; that is, they are reusable if you don't want to keep the data stored on them.

DVDs come in both DVD-R and DVD-RW forms, just like CDs, so the preceding comments apply to them as well. Unfortunately, manufacturers use different storage formats. Check your computer manual to determine what disk formats can be used in your computer: DVD-R, DVD-RW, DVD+R, DVD+RW, and/or DVD-RAM. Most DVD burners on Vista computers support the first four formats.

There is another consideration: Disk Speed. The disk's X speed refers to the rate it can record information. For example, a drive can write information onto a 40X disk five times faster than onto an 8X disk. Buy disks with as fast an X speed as your drive can handle. Typically, the speed and type of disk are listed on the outside of the package. Buy fast disks if you can't find your drive's specifications because a slow drive can write to speedy disks.

The best way to copy files and folders onto data disks, and the easiest way to duplicate program and music disks are covered later in this tutorial. Vista

lets you copy files and folders, but lacks a convenient way by which you can copy entire disks for backup purposes.

### AutoPlay Command

This feature displays a dialog of possible actions to take when you insert a CD, DVD, or removable storage device (USB thumb drive, for example).

### Format Command

This feature formats the inserted CD or DVD. This process erases all information (if any) on the disk! There are two ways to format a disk: Live File System and Master.

### Eject Command

Slides out the tray for a CD or DVD--so you don't have to press the little eject tray button on the drive door. Ctrl + J also Slides out the tray if you have a single disk drive.

### Play Command

This command lets you start up a disk already inserted into a drive.

# CHAPTER 13
# MANAGE YOUR DISKS

You must format a disk before you can copy files and folders onto it. Vista offers two different ways to format a disk: Live File format and Master format. When you prepare the disk with the desired format, you can copy files and folders onto it.

Use the Live File format when you want an erasable backup disk. You can erase old files from it and copy new files onto it. By default, Vista prepares RW disks in the Live File format. This format lets you treat a disk as a big floppy disk or as a small thumb drive with 650MB disk capacity. (A disk with the Live File format is only compatible with Vista. However, if you close the disk as described below, it will also be compatible with other Windows operating systems.)

Use the Master format when you want a permanent backup disk. Files and folders, once copied, can't be erased. You must copy all data onto a disk with the Master format in a single session; you can't go back later and place

more stuff onto the disk! A disk with the Master format works well as a permanent backup of important data.

# Format RW Disks

Follow these steps to format an RW disk:

1. Place a blank (new) RW disk into your RW disk drive.

   Autoplay starts up and displays a dialog box, named Burn a Disk, where you may label the disk and pick its format.

2. Type a label for the disk in the text box.

3. A disk label may have a maximum of 16 characters. Enter a short name-- Family Picnic, Winter Vacation--or use the current date. Spaces are allowed in disk names.

4. Activate the Show formatting options button only when you want the Master format.

5. Activate the Next button to prepare the disk.

You may copy files and folders immediately onto a Live File disk or at any later time. This format lets you delete files from and copy more files onto the disk. That is, you may use a disk with the Live File format just like an ancient floppy disk or like a thumb drive. You may Close or Finalize the disk (as described below) on your Vista computer at any time; that process makes the disk compatible with other computers and disk players.

A disk with the Master format has different virtues. This disk format is by design compatible with older computers, CD players, and DVD players. A disk with the Master format behaves like a commercial CD or DVD; that is, its data are permanent, and you can only read that disk. You must copy all files and folders together onto a disk with the Master format. (All the files and folders to be copied are temporarily stored on your hard drive, about 650MB, so you need that much free space on your hard drive.)

# Erase RW Disks

You may erase all the data on a disk, which has the Live File format:

1. Place the RW disk into your disk drive.

2. Move onto the drive in Computer.

3. Pick the Erase command from its shortcut menu.

**Remark:** You may rely on the Quick Format option on a drive's shortcut menu to reformat a disk quickly with the Live File format.

# Erase Individual Files from RW Disks

You may delete individual files on a disk, which has the Live File format:

1. Place the RW disk into your disk drive.

2. Move onto the drive in Computer and tap the Enter key.

3. Select the items to be deleted and tap the Del key.

# Pick a Default RW Drive

Your computer may possess multiple RW drives--a built-in RW drive and an external RW drive. You need to pick one of them as the default drive on which you prepare RW disks. Here are the required steps:

1. Move onto the preferred RW drive in Computer.

2. Pick the Properties option from its shortcut menu.

3. Move onto the Recording tab page.

4. Pick the desired RW drive from its Drive menu.

# Burn RW Disks

You burn a (formatted/prepared) disk when you copy files and folders onto it. Place a blank disk into your disk drive and choose Burn Files to Disk. Vista treats a CD and a DVD a little differently.

Vista offers two commands for a CD. Burn an audio CD: This command launches Windows Media Player so you can create an audio CD that plays music in most CD players. Burn Files to Disk: This command lets you copy files onto the CD.

Vista offers three commands for a DVD. Burn a DVD Data Disk: This command launches Windows Media Player so you can backup music files. Your DVD drive might be able to play these music files if it supports MP3 or WMA formats. Burn Files to Disk: This command lets you copy files onto the

DVD. Burn a DVD Video Disk: This command launches DVD Maker so you can create a movie or photo slide show.

You may burn a disk in two different formats. You copy data onto Disks with the Live File format and onto disks with the Master format in different ways. Here are the details.

# Burn Disks with the Live File Format

Prepare a disk in the Live File format as described previously. You may place it back in the disk drive at any time and copy files and folders onto that disk. Here are the steps:

1. Place the disk into your disk drive.

2. Locate and move onto the file or folder to be copied.

3. Pop up its Shortcut menu.

4. Pick the Send option.

5. Pick your disk drive.

   Vista places a copy of the selected file or folder onto the disk, and you are finished.

You may repeat this process as many times as you wish. You may also select multiple items and send all of them to your disk drive.

# Burn Disks with the Master Format

Prepare a disk in the Master format as described previously. Leave that disk in the drive and copy files and folders onto that disk. Here are the steps:

1. Leave the disk in your disk drive.

2. Locate and move onto the file or folder to be copied.

3. Pop up its Shortcut menu.

4. Pick the Send option.

5. Pick your disk drive.

Vista places a copy of the selected file or folder into a temporary area, not really copied it yet onto the disk. You may repeat this process as many times as you wish. You may also select multiple items and send all of them to your disk drive.

6. Pick the Burn to Disk command on the Command Bar.

Now they are actually copied onto the Master disk.

The drive automatically ejects the disk when the burn (copy) process finishes. You can now use that disk on another computer or on a CD or DVD player. (You don't need to close or finalize a disk that has the Master format.)

# Close or Finalize RW Disks

Vista automatically closes the burn session when you eject a disk that has the Live File format. That process consumes about 20Mb of space on the disk and may take a couple of minutes to finish. You can use that disk on other computers, on disk players, or burn it again on your Vista computer.

You may prefer Vista to eject a disk and not close it automatically so you save 20Mb of space on the disk every time you use it. You may put that disk back into your RW drive as often as you like and work with its files and folders. However, you will need to close that disk manually when you want to access it on other computers or disk players.

# Don't Close RW Disks Automatically

Follow these steps when you want to treat disks in the Live File format as handy backup disks:

1. Move onto the default RW drive in Computer.

2. Pick the Properties option from its shortcut menu.

3. Move onto the Recording tab page.

4. Pick the Global Settings option.

5. Uncheck the Automatically close the current UDF session when the disk is ejected check box.

# Close RW Disks Manually

Follow these steps when you want to use disks in the Live File format on other computers or devices:

1. Place the disk into your default disk drive.

2. Move onto the default RW drive in Computer.

3. Pick the Close Session command from its shortcut menu.

4. Eject the disk.

Now you can use that disk on other computers and disk players.

Vista finalizes a burn session when you eject a disk that has the Master format. You can use that disk as is, on other computers, disk players, or on your Vista computer.

# CHAPTER 14
# MANAGE YOUR PROGRAMS

All the programs that come with Vista reside on the All Programs list located in the Start window, and all the programs you install on your computer reside on the Programs and Features list in Control Panel (while in classic view). This chapter tells you the various ways you may manage your programs--start them, install or uninstall them, and make older programs behave under Vista.

## Launch Your Programs

You need to locate a program installed on your computer before you can use it. Once you find a program, you can take shortcuts the next time you want to use it. Here are the details:

## Start with the Start Window

The gateway to all of your programs is the Start window. As mentioned earlier, the left pane of the Start window contains a small list of handy programs; they include your Internet browser, your e-mail program, and a few programs that you used recently. Move onto the left pane; move onto a program; and tap the Enter key to launch (start) that program. The window for the program opens and the Start window closes.

If the left pane doesn't show the program you want, you have two ways to find it: use the Start Search box below the left pane or use the All Programs button at the bottom of the left pane.

# Search for the Program

Type the name of the program into the Start Search box. For example, type Calculator to access the calculator program in the Accessories folder. The left pane instantly displays search results, and you will find the Calculator program listed in the program group. Move onto that entry and tap the Enter key to launch that program.

**Remark:** Notice that the Run Command doesn't appear in the left pane. That's because you can run commands with the Start search box instead.

# Browse for the Program

You may not remember the name of the program you want, or you may wish to check what programs are available on your computer. Activate the All Programs button. As mentioned earlier, the left pane shows a list of individual programs followed by a list of folders that hold related programs. Browse until you locate the desired program.

# Take Shortcuts

It's a big waste of time and effort to trudge through the All Programs list when you want to use a favorite program. Luckily, you may place shortcuts for them in three nearby locations: on the left pane of the Start window, in the Launch Area next to the Start button, and on the Desktop.

# Pin to Start Menu

Move onto a program in the All Programs list; pop up its shortcut menu; pick its Pin to Start Menu option. Vista places a shortcut for the selected program in the left pane of the Start window. Just activate that shortcut to launch your program.

# Add to Quick Launch

Move onto a program in the All Programs list; pop up its shortcut menu; pick its Add to Quick Launch option. Vista places a shortcut for the selected program in the Launch Area on the Taskbar. Just activate that shortcut to launch your program.

# Desktop (Create Shortcut)

Another quick and simple way to launch a program is from your Desktop. You can place a shortcut for any program there and, thereafter, ignore the previous methods. You can use a Desktop shortcut only when you are at your Desktop. Sometimes, you may wish to start a program immediately even when you aren't at your Desktop. You can assign a shortcut key to a Desktop shortcut that lets you do this. The steps to create shortcuts and shortcut keys are presented in Chapter 3 under Desktop Shortcut Icons and Desktop Shortcut Keys.

# Use the Startup Folder

Many users rely on the same programs day after day and year after year, and every time they start their computers, they manually launch these programs. There is no need for this tedium because Vista can launch them automatically.

Vista maintains a Startup folder filled with shortcuts for programs (as well as for files and folders). If you place shortcuts for your favorite programs in that folder, then Vista routinely launches them when it starts up.

Peek in your Startup folder; here's how:

1. Pop up the Start window.

2. Display the All Programs list.

3. Move onto and expand the Startup folder.

   It shows a list of the items launched when Vista starts up. (My personal Startup folder shows two items: Microsoft Office and Window-Eyes, my screen reader.)

You can place any program, file, or folder in your Startup folder. For example, here are the steps to place the Calculator program there:

1. You need a shortcut for the Calculator program; so place a Calculator shortcut on your Desktop.

   Rely on the Desktop (Create Shortcut) option on its shortcut menu to do that.

2. Move onto the Desktop, move onto that shortcut, and copy it to the Clipboard.

3. Pop up the Start window, and display the All Programs list.

4. Move onto and expand the Startup folder.

   The rest of this procedure doesn't work properly with the Startup folder closed.

5. Move onto the Startup folder, and pop up its shortcut menu.

6. Pick the Open option to open the folder window.

7. Paste the shortcut here.

8. Close the folder window.

9. Confirm that Calculator was added; expand the Startup folder and check.

   The next time you boot your computer, the Calculator program launches.

It's even easier to remove a program from the Startup folder. Just expand that folder, move onto the unwanted item, and tap the Del key.

# Install Your Programs

Vista comes with lots of useful programs already installed. You may prefer, however, to use a program from a competitor--a simpler e-mail program, a music program that works with iPods, and so on. You are able to install more programs--for example, programs you download off the Internet--freeware and shareware, and software purchased at the local computer store.

How you put a new program on your computer depends on where the program resides. Typically, programs are installed from a CD or DVD or from the Internet.

# Programs on CD or DVD

Insert the CD or DVD into your computer's drive and follow the onscreen instructions. A program may launch its own install wizard automatically; the AutoPlay dialog box appears, and you should run the wizard. The wizard installs the program for you, and you are finished. The program now resides on the All Programs list.

If nothing happens when you insert a program CD or DVD into your computer's drive, you must install the program manually. Read the documentation that came with the program, if any, or browse through the disk and open the program's setup file, usually called Setup.exe or Install.exe.

# Programs from the Internet

Often, you come across a link on a web page that invites you to download and install a program. Just activate the link to begin. You have two options:

• Pick the Open or Run command to install the program immediately. Files are downloaded onto your computer and the installation process begins.

• Pick the Save command and install the program later. Your browser downloads an installation or setup utility for the program. This is a safer option because you can scan the installation utility for viruses before you proceed. Run that utility at any time to install the program.

# Uninstall or Change Your Programs

Pick the Programs and Features item in Control Panel (while in classic view) to display the list of your installed programs. This list only includes programs you installed. Those that came with Vista aren't shown here-- they're in the All Programs list as previously discussed. (This option replaces the Add or Remove Programs item found in XP.) You should uninstall a program you no longer use; that reduces clutter and frees up valuable hard disk space. Here are the steps:

1. Pick the Programs and Features item in Control Panel (while in classic view).

   A list of your installed programs appears.

2. Move onto the doomed program.

3. Pop up its shortcut menu.

   You may find Uninstall, Change, Uninstall/Change, or Repair as options.

4. Pick the desired option.

   There are programs that you can change or repair; Change, Repair, or Change/Repair let you install or uninstall optional features of programs.

**Remark:** A program that you install may not be listed in the Programs and Features list. That can happen when the program wasn't written for Vista or XP, in which case, look in the All Programs list.

# End Non-Responsive Programs

Occasionally, a program will freeze up--not respond to keyboard or mouse commands--typically because a problem occurred in the program. A temporary problem may correct itself, and you are back in business. However, you may need to close the program. When you close a non-responsive program, all its open files are also closed. A program may, or may not, save your work when its files are closed.

Vista will try to diagnose and fix the problem, so wait a few minutes. You can use Task Manager to view the status of the program or to close the program if the problem persists. Do this:

1. Activate the Task Manager with the Ctrl + Shift + Esc key.

   A property sheet with six tab pages appears.

2. Move onto the Applications tab page.

3. Move onto the non-responsive program.

4. Pick the End Task command.

   The program and all its open files are closed.

5. Restart the program and hope for the best.

# Make Your Programs Compatible

You upgrade to Vista, but you want to work with your old favorite programs from developers other than Microsoft. Vista has a Compatibility Mode that makes it possible for these programs to run as if they are on an earlier version of Windows. For example, my 10-year-old scanner program, OpenBook, works well on Windows 98, but didn't work at all when I installed it on Vista. Fortunately, the compatibility feature in Vista resolved that problem nicely.

**Remark:** You must download new drivers for hardware! Program Compatibility only works with application programs, not hardware drivers.

Don't panic when you install an older program and get error messages when you run it. Do this instead:

1. Select the program in the All Programs list.

2. Pop up its shortcut menu.

3. Pick its Properties option.

   A property sheet appears with five tab pages: General, Shortcut, Compatibility, Security, and Details.

4. Move onto the Compatibility tab page.

5. Select the Windows version that the program was originally designed to run on from the Compatibility mode's drop-down menu.

6. Activate the OK button.

7. Try to run your program.

   Pick an earlier version of Microsoft Windows if it doesn't work.

**Remark:** Keyboard focus may return to the Start window. Use the Alt + tab key to move onto the property sheet window. Keyboard focus falls within the Shortcut tab page. Move onto the Compatibility tab page.

Need new Vista compatible products? You can find them online at www.WindowsMarketplace.com. Here, you can find, try, and buy hardware and software for Vista.

# CHAPTER 15
# MANAGE YOUR COMPUTER

You invest considerable effort and money in your computer and in your home. You put irreplaceable personal property in your computer--your documents and other creations, and you put irreplaceable personal property in your home--furniture and other valuables. It is prudent to take out personal property insurance in both situations--fire, theft and acts of nature can damage or destroy both.

Hopefully, you have insured your home. Here are few simple steps to ensure your computer's safety. This chapter offers several insurance policies for your computer free of charge.

# Make That Vital Password Reset Disk

You may forget your user password and are locked out of your own computer forever. Be prudent, be responsible and make that all-important Password Reset Disk. It only takes a few minutes with the following steps:

1. Insert a removable medium--a CD, DVD, or Thumb Drive.

   Vista places your Password Reset Disk (really a reset file) on this medium.

2. Pick the User Accounts item in Control Panel (while in classic view).

3. Move onto the Address Bar.

4. Move onto the Create a Password Reset Disk link with two taps of the Tab key, and tap the Enter key.

5. A wizard appears to help you.

6. Pick the Next button a couple of times and finally the Finish button.

   Vista places a file, userkey.psw, onto your removable medium.

7. Put that disk in a very safe place.

Use it when you get to the Logon Screen someday and can't remember your password.

# Clean Up Your Hard Disk

Certain programs store temporary files in the Windows Temp folder while they work. They, like many teenagers, don't necessarily clean up after themselves. These temporary files have no further use and clutter up your hard disk--a big waste of valuable disk space.

Disk Cleanup discards unneeded files for you and frees up disk space. Here are the steps to clean house:

1. Pop up the All Programs list and pick Accessories.

2. Pop up the System Tools menu and pick the Disk Cleanup utility.

   A dialog box pops up with two clean-up buttons: My Files Only and Files from All Users.

3. Activate the desired option.

   A dialog box appears where you pick the disk drive to clean up.

4. Move onto the disk drive and activate the OK button to commence the clean up.

   Vista calculates the amount of disk space freed up in several areas.

5. Check those items you want removed, and uncheck those you want to keep. Be careful--check and uncheck the correct items!

6. Activate the OK button, and confirm the clean up.

   Vista goes to work, and in a few minutes has your computer home in tidy order.

The specified files are swept away, and Disk Cleanup exits.

# Speed Up Your Hard Disk

Vista puts bits and pieces of a file wherever they can fit on your hard disk and then keeps track of these file fragments. This storage scheme for a file is efficient as long as there aren't too many file fragments. But more and more file fragments are created as you repeatedly open and save the same file. Eventually, Vista must scan lots of places on your hard disk to locate the multitude of file fragments. Then, you notice a dramatic time delay when the file is opened (retrieved and pieced together) or closed (saved and scattered all over the disk).

Disk Defragmenter places file pieces in sequence to speed up and tidy up your hard disk. Moreover, Disk Defragmenter rearranges disk files so the most frequently accessed files are also together. Vista runs the Defrag utility every week for you, but you may run it manually if you feel the need. Here are the steps to defrag your hard disk:

1. Pop up the Start window.

2. Display the All Programs list.

3. Move onto Accessories. Expand if necessary.

4. Pop up the System Tools menu and pick the Disk Defragmenter utility.

   The User Account Control dialog box may appear.

5. Activate the Continue button.

   Up pops the Defrag dialog box.

6. Activate the Defrag Now button.

   Disk Defragmenter analyzes your hard disk and goes to work. This process can take quite a long while.

You can work while Vista defrags your hard disk. You can turn off your computer at any time; the defrag process continues when you next turn on your computer.

# Vaccinate Your Hard Disk

Both you and your computer may contract a viral infection. In addition, both you and your computer may become a little sick or deathly ill--the course and severity of the infection depends on the nature of the virus.

A viral infection may be contracted in various ways. A computer virus can be downloaded from the Internet or copied off a disk.

The best way to keep your computer healthy is to protect it against viral infections. You must have an antiviral program and keep it up-to-date.

# Restore Your Hard Disk

All is well with the world and with your computer until that fateful day when strange things start to happen with your computer. You wish things could be like they were a few days ago before problems emerged. You can get your wish with a little forethought.

You may install a program or device driver that causes Vista or other software to behave erratically. You should uninstall this trouble maker with the Programs and Features item in Control Panel (while in classic view). Hopefully, your computer system returns to normal. However, problems may persist because settings on your computer were changed by that program. There is a solution to this dilemma: Vista can restore your computer system back to a previously healthy condition.

A maintenance feature, System Restore, lets you return Vista to an earlier time when your computer worked properly. It undoes system changes without affecting your personal files--e-mail, documents, music, or photos. You employ System Restore in two steps: restore points are created while your computer feels well, allowing you to return to one of these restore

points when your computer becomes ill. The next two sections tell you how you create restore points and use them.

**Remark:** System Restore doesn't deal with your personal files, only system files used by Vista. It can't help you recover a damaged or deleted personal file. You should frequently back up your personal files and important data using a backup program or the Copy command.

# Create a Restore Point

You must run the System Restore command while your computer is healthy. This program surveys your computer and gathers all the necessary system settings and stores them away for a rainy day. You can run the System Restore command when your computer takes ill; system settings are reset to those healthy settings you previously saved away.

Unlike XP, Vista has a feature called System Protection, which frequently creates, and saves restore points for you. System Protection is on by default. You are advised to keep it on!

Start with the most recent restore point so you don't undo earlier changes you want to keep. Better yet, create a restore point manually before you install a program or driver or before you make a system change. Use that restore point if a problem occurs; only that change will be undone. Follow these steps to create a restore point manually:

1. Pick the Backup and Restore Center item in Control Panel (while in classic view).

2. Activate the Create a Restore Point or Change Settings link.

   The usual User Account Control dialog box appears, asking your permission to continue.

3. Activate the Continue button.

   A Systems Properties window with five tab pages appears.

4. Activate the Create button on the default tab page labeled System Protection.

   A dialog box appears.

5. Type a name for the created restore point. For example, Computer Works Fine. (The current date and time are added automatically.)

6. Activate the Create button.

   Vista creates your restore point in a few moments, and an alert box appears.

7. Activate the OK button to exit the alert box.

You need at least 300MB of free hard disk space for every restore point. Restore points can consume up to 15 percent of your hard disk space--but well-worth it when a problem arises with Vista. (System Protection doesn't work on disks smaller than 1GB.)

# Use a Restore Point

You can restore your computer to happier times when something goes awry; just pick a restore point created by you or Vista. Here are the steps:

1. Pop up the All Programs list and pick Accessories.

2. Pop up the System Tools menu and pick the System Restore utility.

   The usual User Account Control dialog box appears, asking your permission to continue.

3. Activate the Continue button.

   A window entitled System Restore appears. Select the "Choose a different restore point" button instead of the defaulted button labeled "Recommended restore" so that you can pick the restore point you prefer.

4. Activate the Next button.

   Another window appears.

5. Move onto the list box labeled Current Time Zone.

   By default, the recommended restore date is selected.

6. Move through the list to pick a different restore point if you wish.

7. Activate the Next button.

   Another window appears confirming the restore point you selected.

8. Activate the Finish button.

An alert dialog box appears asking if you are sure you want to continue.

9. Respond Yes to begin the restore process. Vista will restart your computer during this process.

You can't stop the restore process or turn your computer off until the restore finishes--otherwise, you may damage Vista.

# Back Up Your Files

Most computers and their disk drives are very reliable and will no doubt give you years of dependable performance. However, your computer may get struck by lightning or get swiped by the neighborhood crook. You can lose files and folders by accidentally deleting or replacing them. A virus or worm attack may destroy them. Software or hardware failure may mangle them. All of your hard work is lost and likely unrecoverable. These situations, and many others, are avoidable with a little foresight--back up your important files and folders regularly and back up very important stuff immediately upon completion. A backup consists of copies of your files and folders stored in a different place.

There are various ways to backup important files and folders. The quickest and easiest way is to copy a file or a folder (filled with files) onto a CD, DVD, or better yet, onto a thumb drive. Here's how:

1. Move onto the file or folder you want to copy.

Pop up its shortcut menu.

2. Pick the Copy command.

3. Move onto the location where you want to put the file or folder.

This can be a CD-RW, DVD-RW, or thumb drive. (Use RW media so you can erase older backups and replace them with newer backups.)

4. Pop up its shortcut menu.

5. Pick the Paste command.

Vista makes a copy of your file or folder and puts it where you specified.

Here's this procedure using shortcut keys instead of commands on shortcut menus:

1. Move onto the file or folder you want to copy.

2. Activate the Copy command with the Ctrl + C key.

3. Move onto the location where you want to put the file or folder.

4. Activate the Paste command with the Ctrl + V key.

Always keep your backup media (CDs, DVDs, or thumb drive) in a safe location different from that of your computer to avoid both being compromised at the same time. (I keep backups at home and at work.)

# CHAPTER 16
# PLAY YOUR MUSIC AND VIDEOS

Vista lets you entertain yourself as you work. You may play music CDs in the background or watch movies on DVDs. This chapter describes what happens when you play disks and how you control that process.

## Autoplay Disks

Place a disk into your drive and close the drive. A program, called Autoplay, checks the disk and decides what to do with that disk. The disk begins to play after a few moments.

Autoplay in Control Panel (while in classic view) knows about different types of disks: audio disks (music CDs), video disks (movie DVDs), software disks (video games), blank (empty) disks, and other types of disks. AutoPlay shows a list of commands for each type of disk. Vista uses the default command in each list. However, you may pick a different command to meet your personal needs better.

## Full Autoplay Dialog Box

Pick the Autoplay command in Control Panel (while in classic view). A dialog box appears. A check box at the top left, labeled "Use AutoPlay for all media and devices," is checked. Uncheck this box only if you want Vista to take no action whenever you insert a disk type. Below the check box are two columns. The left column lists 16 common types of disks. The second column shows the default action for those disk types. The Tab key moves

you onto a disk type and its default action. Then, use the vertical arrow keys to select a different action for that disk type. Use the Tab key again to move onto the next disk type and its default action, etc. Activate the Save button when finished. Your changes are saved, and you exit the Autoplay dialog box and return to the Control Panel window. The specified commands are used whenever you place disks into your disk drive.

If you make a mess of the disk settings, never fear! You can return them to their original values: display the Autoplay dialog box in Control Panel (while in classic view), activate the Reset All Defaults button (located in the lower left corner of the dialogue box), and then the Save button to put all disk options back to their original settings.

# Partial Autoplay Dialog Box

When you first put a disk into your drive, Vista checks the disk and starts the default action. Typically, for a music CD, Vista will start the WMP program and play your CD. However, you may bypass the default action and pick a different action. To do this, place the disk into your disk drive; press and hold the Shift key; close the drive. A partial Autoplay dialog box for that disk type appears after a few moments. Just pick the desired command with the vertical Arrow keys.

**Remark:** Autoplay also works with a thumb drive although that device isn't listed in the Autoplay dialog box. Hold down the Shift key and insert the thumb drive into a USB port. A dialog box appears where you may specify a drive command.

# Disk Commands

Here are descriptions of the available disk commands across disk types.

# Windows Media Player (WMP); Windows Media Center (WMC)

Every version of Vista comes with the program named Windows Media Player (WMP). Rely on this program for most of your entertainment needs. WMP can find and play digital media files that are stored on your computer, play commercial CDs and DVDs, and play digital media streams from the Internet. Moreover, this program can rip (copy) songs off of commercial music CDs and place them onto your computer so you can listen to them without the CDs, and can burn (make) personal music CDs from songs stored on your computer. In addition, this program can place digital media

files onto portable devices (MP3 players, but not iPods), and let you find and purchase digital media content on the Internet through online stores.

The 11th version of WMP bundled with every version of Vista gives you all the basics. You can play CDs and DVDs and organize your music and movie files with little effort. Its default file formats are Windows Media Video (WMV), Windows Media Audio (WMA), and Advanced Systems Format (ASF). It also supports its own XML based playlist format called Windows Playlist (WPL). You may have Windows Media Player create MP3 disks instead of disks in WMA format so they are compatible with most music players.

WMP, when started the first time, requires that you pick between Express and Custom setups. Pick the Express setup to bypass all the tedious details. Express setup uses Microsoft's preferred settings. At any time you may change them as you learn about them in the next chapter.

Windows Media Center (WMC) began life as a customized version of Windows to be viewed on a TV and used with a TV remote control. Its large menus and controls are out of place in Windows Vista. You may mostly ignore WMC because it duplicates the main functions found in Windows Media Player and only comes with Vista Home Premium and Vista Ultimate. (However, you must rely on WMC to record and watch TV shows on your computer.)

**Remark:** Pick the WMP command for a disk type whenever available. That way, you can rely on a single program to play any disk. Autoplay will check an inserted disk and launch Windows Media Player for you. Then, you can use its controls to play, pause, mute, skip tracks, and much more.

# Windows Explorer

Usually, you want to play a CD or a DVD. However, there are occasions when you may wish to review the contents of a disk instead. This is usually true when you are dealing with a data disk filled with files and folders. Put the disk into the drive, exit WMP (or WMC) when it starts up, open Computer on the Desktop, move onto the disk drive, display its shortcut menu, and finally, pick the Open command. A folder window appears and shows the contents of the disk.

# Take No Action

You may want total control over a disk type--sometimes view its contents, other times play the disk with a preferred program, and so on. The command, Take No Action, lets you do just that. With this option in effect,

no program starts when you put a disk into the drive. You can rely on the drive's shortcut menu to perform the desired command, or you can pick the desired program from the All Programs list.

## Ask Me Every Time.

Once this command has been selected and saved, a partial Autoplay dialog box appears when that disk type is inserted into the drive. It shows a single check box labeled "Always Do This ...," and below it, a list of options available for the detected disk type. Move onto the desired option in the list, and tap the Enter key to start that action.

Move onto the "Always Do This..." check box and tap the SpaceBar key to select it; the next time you insert a disk of that type, the specified command will be used. Leave this check box unchecked if you want this dialog box to appear whenever you insert a disk of that type.

**Remark:** Rely on this command (with the "Always Do This ..." check box unchecked) if you want to pick different behavior on different occasions for a disk type.

## Run Enhanced Content

The publishers of music CDs and of movie DVDs may enhance them with extras--pictures of the artists, bios of the artists, and so on. Enhanced contents are in different formats--neither audio nor video. They are usually mini-programs (executable files) that display pictures or text. Autoplay has Enhanced Audio and Enhanced DVD disk types; both include the Run Enhance Content option.

**Access Note:** A user of a screen reader should pick the commands: Play Audio CD Using Windows Media Player and Play DVD Movie Using Windows Media Player. A screen reader can't announce the enhanced content, so the Run Enhanced Content command should not be used.

## Install or Run Program

A software or game disk has a program that you usually want to install or run when you place the disk into your disk drive. Follow these steps to have Autoplay routinely do that: Display the Autoplay dialog box, move onto the disk type Software and Games, move onto its Install or Run Program option, and finally, activate the Save button. The next time you place software or game disks into your disk drive, Autoplay will install or run its program.

# Handle Pictures and Videos

Digital cameras have revolutionized how pictures are taken--no more film and no more darkrooms. You can immediately see a picture and keep it or do a retake.

Vista lets a shutterbug take pictures off a digital camera and put them into its photo gallery. A user plugs the camera into a USB port, and Autoplay presents three options for pictures: Import pictures using Windows, View pictures using Windows, and View pictures using WINDOWS MEDIA CENTER. Autoplay has similar options for videos.

# Rip Music

It would be nice if you could quickly and effortlessly copy all the songs off a favorite music CD onto your hard disk and listen to any or all of them later on without the CD. You can do that with WMP.

**Remark:** A music producer may employ copy protection so you can't copy its music CDs onto your computer. If you have a copy-protected music CD, hold down the Shift key for a few seconds just before and after you place the music CD into your disk drive. This trick often thwarts the copy protection software.

Here's the procedure to copy (rip) music onto your computer:

1. Connect to the Internet so information about the album and its songs are added to your music library.

   You connect to Microsoft's music database. The name of the album, artist, and song titles are looked up. Data about every song--track number, song title, track length--are downloaded as song tracks are copied onto your computer. If you are not connected to the Internet, then no data are added; all items are marked as unknown. You can add data manually if you wish, but that requires lots of work. So be sure to connect to the Internet before you rip a music CD.

2. Place your music CD into your disk drive and press and hold the Shift key while you close the drive.

   After a few moments, the Autoplay dialog box appears.

3. Pick the command labeled Rip Music from CD Using Windows Media Player.

Windows Media Player starts up and creates a folder in your Music folder with the name of the artist; under that, it creates a folder with the name of the album being copied.

Windows Media Player "rips" all the songs (tracks) off the music CD and places them in individual song files in the album folder. The song files are labeled with their track numbers and song titles if you are connected to the Internet. Actually, they are listed with their track numbers, titles, artists, albums, and genres in that order. File types, file sizes, and play times are also included. Here is an example of a song file listed in my music folder under the artist Tweet in her album Southern Humming Bird:

02 My Place.wma Tweet Southern Humming Bird Soul and R&B

Windows Media Player marks a song (track) as ripped when copied onto your hard drive. You may exit Windows Media Player with the Alt + F4 key when all songs are marked as ripped--the Stop Rip button becomes the Start Rip button when all songs are ripped (copied) onto your hard drive. Alternatively, you may rip another music CD if you wish: eject the current CD and insert another CD; the rip process starts automatically.

**Remarks:** You learn more about the rip process in the next chapter. You are told how you can make a music CD automatically eject when the rip process finishes; that way, you don't need to monitor the Start/Stop button. You are offered a different way to rip music CDs; it lets you pick which songs you want to copy. Notice the default song file extension WMA (Windows Media Audio) in the Tweet example. This is a proprietary Microsoft audio format. You are told how you may change from WMA to MP3, the audio format used by most music players on the market; you need to do this if you want to play your ripped music on car CD players or portable MP3 players.

A ripped music album is placed in your Music folder by default, and links to the album and its contents are added to your Player library. (This is discussed in the next chapter.) You can also rely on Windows Media Player when you want to put your ripped music in other places--copy them onto portable music players and personal music CDs, or add them to personal playlists.

A dialog box may appear which asks if you want to copy protect your ripped music. Turn on copy protection before you rip songs if you want to limit their distribution. You can't remove copy protection from a song file once it has been applied, and copy protection is only available when you rip music to a Windows Media Audio (WMA) format.

**Remark:** Don't copy protect music files if you wish to use them on multiple computers or make multiple copies for personal use. You learn in the next chapter how you may turn copy protection off.

You may listen to a music CD while you rip that CD, or you may listen to other music you already ripped. Have fun!

By the way: don't work with your computer while it rips music--just let it rip away. Experts claim that music data may be lost or corrupted if you run other programs.

## *Play Ripped Album*

You may play an entire album (ripped CD) in your Music folder in a few steps:

1. Display your Music folder in your personal folder.

2. Pick an artist.

   Move onto the name of an artist and tap the Enter key. A list of albums by that artist appears.

3. Move onto an album and tap the Shift + F10 key to pop up its shortcut menu.

4. Tap the P key to activate the Play with Windows Media Player command, and wait a few moments.

Windows Media Player starts up and plays all the tracks in order on the album.

You have two open windows, your Music folder and the program window for Windows Media Player. You can switch between them with the Alt + Tab key. Switch back to the Music folder when you want to play different music. (Rely on the Alt + Up Arrow key to move back to the list of artists.)

Switch back to Windows Media Player when you want to pick different play options. Tap the Ctrl + S key to stop play; tap the Ctrl + P key to merely pause play; and tap the Alt + F4 key to exit the Windows Media Player program.

## *Play Ripped Song*

You may play a single song in a few steps:

1. Display your Music folder in your personal folder.

2. Pick an artist.

3. Pick an album.

4. Move onto a track in that album and tap the Enter key.

   Windows Media Player starts and plays that track.

5. You can pick another track when that track finishes.

   Play as many individual songs as you wish.

6. Exit the program with the Alt + F4 key when finished.

**Access Note:** Copy (rip) a music CD onto your computer while connected to the Internet, then you will have immediate access to most of the written information on the music CD and from the printed album insert. You can read the song titles, artists, length of songs, and more while in your Music folder.

The described procedure puts an entire album onto your computer--even the songs you don't like. There are two ways to get rid of unwanted tracks. Rip an entire album and then delete individual tracks from the ripped album in your Music folder. This is the easiest way to proceed. You also have the opportunity not to rip tracks as you rip an album. Pick the rip command and immediately activate the Stop Rip button. Then, uncheck the unwanted tracks in the list of tracks, and finally activate the Start Rip button. Only the check tracks are ripped.

## Play Music on Your Computer, Summary

Here's a summary of the simplest way to play a music CD on your computer. (The next chapter offers fancier ways to play music and create personal playlists.)

Your disk drive can be used as a music CD player. Place a music CD into your disk drive and close the drive door. Autoplay determines the type of disk and then launches Windows Media Player for you. (It's assumed you followed the recommendation in this chapter so the Play Audio CD Using Windows Media Player command is in effect in the Autoplay dialog box for audio CDs.) After a few moments, track 1 begins to play, and you are in the program window for Windows Media Player. You may ignore most of its controls for now.

Rely on shortcut keys in Windows Media Player to control your music session effortlessly. Ctrl + B and Ctrl + F move you back and forth through music tracks as a music CD plays; use these keys to skip over tracks you don't want to listen to. Ctrl + P pauses play so you can answer that phone call and also resumes play where you halted play. Ctrl + S permanently stops play. Then you can play a different track as described in the next chapter, eject the music CD and insert another, or exit Windows Media Player entirely. Ctrl + J ejects the disk; you can insert and play another music CD if you wish. Alt + F4 exits Windows Media Player. F8 decreases volume, and F9 increases volume. F7 mutes the audio but the music continues to play silently.

You may do away with music CDs and copy their contents onto your hard drive. (Follow the instructions on how you rip music presented earlier in this chapter.) You may place a shortcut for your Music folder on the Desktop for quick access or pick it from the right pane in the Start window. As mentioned, all artists are listed in your Music folder; pick an artist to display a list of albums by that artist. Move onto an album and pick the Play command from its shortcut menu to play the entire album. Alternatively, Pick an album and then pick a single track to play. In both situations, Windows Media Player starts up, and you may rely on its shortcut keys to control your music session. Remember that you can switch between the Music folder and Windows Media Player at any time with the Alt + Tab key to pick a different album to play or to adjust the play parameters.

**Access Note:** No doubt, your computer has a multi-channel sound card. That means you may adjust volume for a screen reader and for a music session separately. Rely on the Volume icon in the System Tray to adjust overall sound level; rely on shortcut keys in Windows Media Player to lower or raise music loudness.

The next chapter discusses Windows Media Player in detail. That program handles all your digital media: Music, Pictures, and Videos. It has many nifty features, for example, you may create a Play List of songs so only your favorite songs on an album are played. However, Windows Media Player does lack features found in other music programs. Consequently, there is no good way to duplicate a music disk and preserve its sound quality.

# CHAPTER 17
# WINDOWS MEDIA PLAYER

Windows Media Player (WMP) lets you manage your digital media--music CDs, movie DVDs, pictures, and videos. This program lets you play and organize your digital media and lets you connect to the Internet where you

can download information about your favorite albums and even buy them. WMP lets you also listen to online radio stations, watch TV shows, and look up program listings.

WMP normally starts up when you place a disk into your disk drive or when you pick an item in your Music, Pictures, or Videos folder under your personal folder. You may also launch this program manually via its icon in the Launch Area of the Task bar, pick this program from the All Programs list in the Start window, or place a shortcut for it on your Desktop.

WMP has many useful features that let you play and manage your audio media, and analogous features that do the same for your video media. WMP doesn't possess many of the dedicated features offered by more specialized third-party digital media programs, but it can get the job done. Therefore, if you do not want to spend money or time on other software, WMP is the right program for you. This chapter describes its window layout, its keyboard navigation, uses, and bugs.

# WMP Accessibility Highlights

Vista offers lots of help topics on WMP, but most are useless to you. They don't tell you what to do to perform common tasks--play music while you copy a music CD onto your computer--don't describe the WMP window layout so you can navigate it confidently with the keyboard, and so on. These topics are covered thoroughly in this chapter.

My much-loved 30 music CDs take up about 1.5GB of hard disk space on my Vista laptop. It is worth the room because I now have access to information about my music hitherto not accessible to me. As you copy a music CD onto your computer, Microsoft looks up album information--track numbers, song titles, artists, music types, track lengths--on the Internet and adds these data to the music files it creates. These data (media attributes and tags) give you access to the information most sighted music lovers take for granted found on the album insert.

Microsoft doesn't look up song lyrics for you as it creates a song file. You may, however, look them up in Google. Here's how I look up the lyrics for Call Me, a favorite song of mine in Southern Hummingbird by Tweet: I type in the Google search box

    lyrics "call me" " Southern Hummingbird"

and many web sites are listed that show the lyrics.

WMP, unlike all the programs described so far, has blatant bugs that would frustrate and anger you as a keyboard user. I point them out and offer ways to avoid them. For example, a tap of the Alt key places focus on the classic menu bar when enabled, but another tap of that key or of the Esc key doesn't get you off the menu bar as you would expect; you are stuck there forever. However, you may rely on a different menu system and work efficiently with WMP menus.

# WMP Window Layout

This program has a window divided into three horizontal panes that extend the width of the program window. Title, Menu, Task bars are in the top pane. The active task page fills the middle pane. The bottom pane contains controls that let you play and monitor the progress of your entertainment session. The top and bottom panes always show the same items. The middle pane shows one of six different pages that correspond to the six tasks you may perform in WMP.

## Top Pane

There are three horizontal bars in the top pane. The title bar at the top shows the name of the program, Windows Media Player. The middle bar, when present, shows a list of menus. The bottom bar, the most important and useful, shows the tasks you may perform in WMP.

## *Menu Bar*

There are two formats for the list of menus: a new and not so improved pop-up menu list and the buggy classic menu bar. By default, the pop-up menus are in effect. Keep this format because it works well with the keyboard. (Ctrl + M switches you between pop-up menus and classic menus.)

Press the Alt key to display a vertical list of five menus:

File - View - Play - Tools - Help

They appear as a context menu, a vertical list of menus, not as a horizontal list of menus. Rely on vertical Arrow keys to move through this context menu. Tap the Enter key to display a selected menu.

The command Show Classic Menus resides at the bottom of the list. Don't use it because you are unable to get out of the classic menus after you display them.

**Access Note:** If you tried this command anyway and are stuck on the classic menu bar, Exit and restart WMP. Then tap the Ctrl + M key to reactivate the other menu format.

You may bypass the pop-up menu list and directly display any of its menus. Alt + Initial Letter does the job. For example, rely on Alt + F to pop up the file menu, Alt + V to pop up the View menu, and so on. As usual, the Escape key exits the pop-up menu list as well as its separate menus.

Now, you are able to make three important changes to WMP.

1. Pop up the menu list with a tap of the Alt key.

2. Move onto Tools and tap the Enter key.

   Another menu appears.

3. Move onto Options and tap the Enter key.

   A property sheet with 11 tab pages appears. You land on the Automatic Updates radio buttons in the Player tab page.

4. Move onto tab 2, the Rip page.

   Press Shift + Tab to move onto the Player tab, press Right Arrow to move onto the Rip tab.

5. Move onto the Format combo box and select item 5, MP3.

6. Move onto the three Rip Settings check boxes in succession.

   If necessary, uncheck the Copy Protect check box, uncheck the Rip CD when Inserted check box, and check the Eject CD when Ripping Is Complete check box.

7. Improve Music Playback quality

   Move onto the track bar labeled Smallest Size. Use Arrow keys to move onto a value between 0 and 3. Most listeners can't tell the difference between the real song track and a ripped copy of that track recorded at 128 Kbps (kilobits per second). WMP defaults to that value, labeled 0 on the track bar. Pick a higher value for better sound quality if you possess good music equipment and plenty of hard disk space. You can rip music and maintain perfect fidelity. Pick Windows Media Audio Lossless from the Format combo box instead of MP3. Get ready for great music on your computer and also for huge song files on your hard drive.

8. Activate the OK button to finish and exit the menu system.

# *Task Bar*

This toolbar shows eight items, two navigation buttons on the far left followed by six task tabs. They are large squares blue in color laid out like this:

   Prior - Next - Now Playing - Library - rip - Burn - Sync - Online

# *Task Tabs*

A single task tab is automatically activated when WMP starts up, and its task page fills the middle pane. Which tab page has the honor depends on how WMP gets launched. For example, place a music CD into your drive, and Autoplay launches WMP and makes Now Playing the active task page-- because WMP has stuff to play. On the other hand, if you manually launch WMP without a music disk, then Library becomes the active task page--so you can pick stuff to play.

Alternatively, move onto one of the six task tabs (as discussed below) and tap the Enter key. That task tab gets pressed, its task page appears in the middle pane, and you are ready to perform that task. Here's a brief description of each task you may perform in WMP.

**Now Playing Task**

You may play a CD or DVD, play individual tracks, and show a pretty page pattern as your music plays.

**Library Task**

You may access and organize your digital media, pick the media category to display (music, Pictures, video, Recorded TV), and pick a category view.

**Rip Task**

You may copy music off a CD and pick a music format for the created song files.

**Burn Task**

You may copy any combination of song tracks onto a music disk, which you may play elsewhere (on a car CD player) or copy files, and folders onto a disk as backups.

**Sync Task**

You may synchronize music, video, and pictures on your computer with portable devices--digital media players, storage cards, and Portable Media Centers.

**Online Task**

You may go onto the Internet and either access online media services or shop at online stores. You may browse through an online media guide and check out new music, video, and movie releases. You can listen to online radio stations as you work. Microsoft has hooked up with Urge as a primary source of music and video products, but you may shop at other online stores as well.

**Access Note:** The rightmost task tab changes its label as you access the two different online services. It may read as Media Guide or as Online Stores. Nevertheless, this task tab always resides to the right of the Sync tab.

# Navigation Buttons

You may perform several tasks, like play music, look through your library of music, rip a music CD, and so on. You can always activate a task again via its task tab on the toolbar, but you have a quicker and often easier way to reactivate a task page. Rely on the two navigation buttons or on their shortcut keys. Alt + Left Arrow and Alt + Right Arrow move you backward and forward through visited task pages. (These two keys work like they do in Internet Explorer where they let you move through visited web pages.)

**Remark:** the navigation buttons perform two other functions with the mouse. Click and hold the mouse over them to rewind and fast forward your music or video.

# Task Menus

Every task tab has a little triangle below it on the toolbar. You activate a tab to display its task page as described, and you activate its little triangle to display a menu of options related to the task. You may activate the tab and its triangle separately or together.

# Middle Pane

Pick a task to perform (as described below). The middle pane fills up with the necessary items--command buttons, list boxes, dialog boxes, and so on. Which items appear in the middle pane depends on the task you pick; thus, the contents of this pane are discussed along with the six tasks later in this chapter.

# Bottom Pane

This pane contains controls and indicators that let you monitor the progress of your entertainment session. All the controls work with music and video media as well as photo slide shows. The play buttons at the bottom of this pane work like those on any tape or CD player; they let you play/pause, stop, rewind, fast-forward, and mute the current music or movie. The most useful controls possess shortcut keys so you may activate them directly. Here they are in brief.

### Seek Track Bar

A music track plays for a specified period of time measured in minutes and seconds as indicated in the track data in your Music folder. However, this bar shows the total number of seconds the track has played, not the number of minutes and seconds. You must place focus on this control in the bottom pane and then use the Arrow keys to rewind or forward a song. You move back or forward by 5 percent of the song play time.

### Rotate metadata icon Button

This button changes a visual effect; it shows a picture as a track plays. Taps of this button cycle through three different visuals, not very useful and not accessible with a screen reader.

### Current Position Text Box

This feature shows the play time of the current track in minutes and seconds.

### Repeat and Shuffle Buttons

Music tracks may comprise a single album or a playlist of favorite songs you put together. WMP plays all of them once in order and then stops. You may enliven your music session in two ways: automatically repeat all of your songs and also play them in a different order.

Ctrl +T turns Repeat on and off, and Ctrl + H turns Shuffle on and off. You may do either or both. They are off by default. If you turn them on, they remain on every time you start WMP until you turn them off.

As an example, follow these steps to play an album or song over and over.

1. Make sure that Repeat is on in WMP.

2. Move onto an album or a track in your Music folder.

3. Pick the Play command from its shortcut menu.

## Pause, Stop, and Mute Buttons

The phone rings, the doorbell rings, somebody enters, or you just want peace and quiet for a while. You may pause and then resume play with the Ctrl + P key; the Ctrl + S key stops play but doesn't resume play. F7 mutes play. This means you hear nothing, but the play continues unabated and audio resumes with another press. (How useful is that?)

## Backward and Forward Buttons

You may skip through tracks to repeat a fun song or jump over a dull ditty. Ctrl + B and Ctrl + F move you backward and forward through the list of tracks. (You can also pick a track directly from the list of tracks as described later.)

## Volume Track Bar

You may decrease and increase audio volume in two different ways. Place focus on this control in the bottom pane and then use the Arrow keys to lower or raise audio level by 5 percent. Alternatively, press F8 or F9 to lower or raise audio level by 10 percent. (Hear nothing? You probably pressed F7, the Mute button, by mistake--press it again.) The audio level you pick stays in effect every time you start WMP until you change it.

## Display Modes

You can work with a cluttered page as your music plays in the background. It's a different matter when you play a video. Onlookers want to hear the music and dialogue and also watch the video. In that situation, you want to empty the page so the video can fill up the entire page. Rely on the Alt + Enter key to hide the normal WPM window after you invoke the music visualization or start a video and turn on the Full Screen view. (A music visualization looks like background wallpaper but it changes in time with the music.) A press of the Escape key exits the Full Screen view and

restores WMP to its default view, Full Mode view. WMP uses Full Mode view by default and Full Screen view when sound visualizations, videos, or TV shows are displayed.

Another view, Compact Mode, without a shortcut key displays just the WMP controls. Activate the Compact Mode button (near the bottom-right corner of the pane) to switch between that view and the default view.

**Play Status Indicators**

A playback status area resides left of the play controls just discussed. This area shows the title of the current music track, the artist, album, and other track data, the amount of time elapsed, and a sound spectrum analyzer (cute and of no real use).

# WMP Window Navigation

The window for WMP has three horizontal panes and six task tabs. Panes and task tabs are navigated differently. Here are the details.

# Pane Navigation

A tap of Ctrl + Tab cycles between the middle pane and the bottom pane; you land on the top-left item of either pane. The middle pane changes its contents with the current task, so its top-left item may vary. The bottom pane, however, never changes its contents so its top-left item remains fixed. So you know that the bottom pane has keyboard focus when you select (or hear) the Seek control. Thereafter, a single tap of Ctrl + Tab puts keyboard focus on the top-left control in the middle pane where you work.

A tap of the Alt key gives you immediate access to items on the pop-up menu in the top pane. Access to buttons on the toolbar in the top pane requires more finesse.

No item apparently has keyboard focus when WMP starts up. Press either Tab or Ctrl + Tab to gain keyboard focus. Repeated presses of Tab move keyboard focus through all successive window items--not just through all items on the current pane.

Rely on Ctrl + Tab to place keyboard focus at the top left of a pane. Then, either press the Tab key to move forward through its controls or press the Shift + Tab to move off that pane and backward through the controls on the next pane up. Shift + Tab places you on the rightmost button on the toolbar when you are at the top left of the middle pane. Shift + Tab places you on

the final control in the active task page when you are at the top left of the bottom pane.

# Task Tab Navigation

As mentioned earlier, there are six task tabs on the toolbar, and they have little triangles beneath them. You activate a task tab to perform its task; it looks pressed in, and its task page appears in the middle pane. You activate a task triangle below a task tab to pop up its menu of task options.

A mouse user clicks either a task tab or its associated menu button. A keyboard user moves onto a task tab with the Tab key and taps the Enter key to start that task. Another tap of the Tab key moves focus onto the menu button for that task, and a tap of the Enter key pops up the associated menu of task options. You may think of a task on the toolbar as a pair of controls: activation tab and menu button.

Recall that you can manually launch WMP with a Desktop shortcut, with the button at the far right of the Launch Area of the Task bar, or from the All Programs list located in the Start window. An initial tap of the Tab key places keyboard focus over the Now Playing task tab, the leftmost task tab on the toolbar. Move forward along the toolbar with the Tab key and backward with the Shift + Tab key, not the Arrow keys.

Move onto a task tab and tap the Enter key. As mentioned, the task tab now looks pressed in, and its task page fills the middle pane. Use the Ctrl + Tab key to move onto that pane where you can perform the task you just activated.

Library is the active task by default, when no disk is present, and its task page fills the middle pane. Either activate a different task or press Ctrl + Tab to move onto the middle pane where you can browse through your Library of media.

# WMP Task Pages and Menus

You may perform six different tasks in WMP with six distinct task pages: Now Playing, Library, Rip, Burn, Sync, and Shop. You may think of them as six different programs because they perform very different tasks and possess different layouts and controls. Now Playing, Library, Rip, and Burn are discussed in this chapter; together they let you play, organize, and copy your music.

# Now Playing Task Page

This task page lets you control and monitor your entertainment session. Place a music CD into your disk drive, play a ripped music album in your Music folder, or activate the Now Playing button on the toolbar, and then WMP shows the Now Playing page in the middle pane. This page consists of two vertical panels: the Video and Visualization panel on the left and the List panel on the right. The left panel displays pictures, videos, or decorative visualizations (animated wallpapers) that move in time with music. The right panel holds standard controls--command buttons, list boxes, etc. If you move onto the bottom pane with the Ctrl + Tab key, and back up with the Shift + Tab key, you land on the Now Playing list in the right panel. This list shows the music tracks you are currently playing. (1) Play a music CD; the Now Playing list shows its tracks. (2) Play a ripped music album in your Music folder; the Now Playing list shows its tracks. (3) Play a single ripped track in your Music folder; the Now Playing list shows just that track. (4) Activate the Now Playing button on the toolbar; the Now Playing list shows no tracks because there are no tracks to play.

Play a music CD or a ripped album, and WMP plays all the tracks in order. You may, however, pick any track in the Now Playing list and commence play at that track. Play a different music CD or a different ripped album. WMP updates the Now Playing list for you. You may employ any of the play controls in the bottom pane whenever tracks are listed in the Now Playing list.

The right panel shows a Clear List Pane button (which looks like a red X) when tracks are listed in the Now Playing list. Shift + Tab moves you off the Now Playing list and places you on this button. You employ this control when you need to empty the Now Playing list for various reasons, which are discussed later.

There's a title button. Shift + Tab moves you off the Clear List Pane button and places you on that button which displays a menu of options related to the Now Playing list. For example, press the title button and pick its Sort item. A submenu appears which lets you rearrange the Now Playing list in various ways: by song title, artist name, release date, your star rating, and so on. WMP plays the tracks in order as now listed. (WMP reverts back to track order, which is the default Now Playing list order, the next time you play that music.)

Play a music CD, and the title button shows the title of the CD as its label. Play a ripped album in your Music folder, and the title button shows Now Playing as its label instead of the album's title. Play a music playlist, and the title button shows the playlist title as its label.

You may rate a song with stars as it plays. No stars checked means that the track has no rating. Typically, the more stars you pick, the more you enjoy

that track. There are two ways to rate a track: move onto a numbered Star button with the Tab keys and tap the Enter key, or press the shortcut key for a numbered Star button. Ctrl + Win + 0 unrates the playing track. Ctrl + Win + 1 through Ctrl + Win + 5 rates the playing track with one to five stars.

There's a Hide List Pane button, which removes that pane. Don't use it! You can show the List pane again if you do. Pop up the Now Playing menu on the toolbar and pick Show List Pane.

**Access Note:** A screen reader may read this control as Hide Basket BTN instead of Hide List Pane.

# Now Playing Task Menu

This menu has six items. Show List pane lets you toggle (turn on and off) the list pane; leave this item checked. Enhancements pops up a menu of advanced music options; you can adjust music attributes such as cross fading and volume leveling. Visualizations pops up a menu of animated wallpapers; they move in time with the music and provide an entertaining background to watch as music plays. Plug-Ins brings you to the Internet where you may download add-ons for WMP. More Options displays a property sheet, a multipage dialog box, with 11 tab pages. You land on the top item on the Player page, Automatic Updates, when you pick More Options. This item, with three radio buttons, lets you update WMP components daily, weekly, or monthly. Shift + Tab moves you onto the Player tab page, and then Arrow keys move you between tab pages. You may ignore this menu item, for its options are found on other menus. Help with Playback presents a list of help topics on WMP.

# Library Task Page

This task page serves as your entertainment catalogue. You browse through it and pick the content for your current entertainment session--play music, watch a video, or perhaps watch a recorded TV show. (How you play music gets emphasized in this tutorial.)

WMP maintains a comprehensive library of **links** to all digital media on your computer. Links to your digital media are placed in five different categories within the Library: music tracks, pictures, videos, recorded TV shows, and other media. WMP adds or removes Library links as you add or remove media files from your media folders.

Only links to your media are in the Library; the actual media files reside in your personal folder. You may add, delete, or rearrange links in the Library

for various reasons. For example, you may select links for music tracks and put them into a playlist so you can play just those tracks.

Start up WMP manually. By default, the Library Task page appears in the middle pane, when no disk is present, and displays the music category. You display a different media category via the Select a Category button as described below. The category you pick stays in effect every time you start WMP till you change it.

This task page consists of three vertical panes: Navigation pane on the left, Details pane in the middle, and optional List Pane on the right. Navigation and Details panes work together; you browse through and play digital media with them. WMP hides the List pane by default on the Library task page. Leave it off because you don't need it in the Library; you can perform all tasks with handy shortcut menus instead. Over these three panes are various toolbars and boxes. The parts of the task page are next described.

## *Address Bar*

Over the three vertical panes in the Library task page resides an Address Bar. It works just like the Address Bar found in a Folder window and shows the Breadcrumb Trail. Ctrl + Tab places keyboard focus on the Address Bar instead of the pair of keys Alt + D and Esc. You find the Select a Category menu instead of the Desktop menu left of the breadcrumb trail. This menu button resides near the top-left corner of the WMP window, just below the Navigation buttons, Back and Forward. Its icon changes when you switch the category. For example, a musical note appears when you switch to the Music category.

You rely on the Select a Category menu to pick the media category displayed on the current task page. The breadcrumb trail always shows the active media category followed by Library. By default the two split buttons Music and Library begin the breadcrumb trail. Pick Video from the Select a Category menu, then the two split buttons Video and Library begin the breadcrumb trail.

You may pick a view for the media category via the Library button on the Address Bar or via the Library tree view in the Navigation pane. Navigation pane controls are discussed below instead of Address Bar controls because you must move onto that pane in either situation to play your media--so why not rely on its navigation techniques.

## Layout Options and View Options

Occasionally, you may wish to alter the layout of the task page or change the list view employed in the Details pane. There are two split buttons, which let you make those adjustments.

Move onto the Address Bar with the Ctrl + Tab key and press the Tab key. You land on a toolbar with two buttons: Layout Options and View Options. Arrow keys move you between them.

Rely on the Layout Options menu to show the Navigation pane, hide the List pane and the Classic menu bar, and rearrange or remove columns in the Details pane. Rely on the View Options menu to pick a list view for the Details pane.

There are three available list views for the Details pane: Icon, Tile/Expanded Tile, and Details. In Icon view, the Details pane shows items as icons. For example, albums appear as they do in a real music store with album art. Works by artists are arranged visually as a stack of CD cases. In Tile view, items display like the Tiles view in a folder window. That is, there is an icon for each item--album art in the case of music--and related textual information placed to the right. Every tile has two parts: an icon and its related text label. In certain situations, Tile is replaced by Expanded Tile, which provides extensive textual data. In Details view, items are displayed as a simple list of text items. You are advised to employ Details view for easiest keyboard navigation.

# Instant Search Box

Move onto the Address Bar with the Ctrl + Tab key and press the Tab key twice. You land on an Instant Search box located above the Details pane. It works just like the Instant Search box in the Start Window and in folder windows. It filters the content of the Details pane. For example, you may display all your music tracks in the Details pane (as explained below). First, type part of a song title into the Instant Search box. Then, only tracks with related titles are displayed--a much shorter list of tracks to browse through. This is a handy feature when you have hundreds or thousands of music tracks stored on your computer.

You may leave the Instant Search box and move immediately onto the Details pane to review its current contents. Type text into the Instant Search box and press Down Arrow to move onto the Details pane located below the search box.

**Remark:** You may prefer to press Ctrl + E to reach the Instant Search box instead of Ctrl + Tab followed by tab twice.

# More Controls

Two controls are located after the Instant Search box: Search Options and Show List Pane. Ignore them because Search Options just brings up help topics and you don't want to show the List pane. If you press the Show List Pane button by mistake, a different button appears: Hide List Pane, which is read as Hide Basket BTN by a screen reader. List pane also appears to the right of the Details pane. Press the Hide List Pane button to get rid of the unnecessary List pane.

# Navigation Pane

Start in the Navigation pane; this is where you access your playlists and your library of digital media. There's no shortcut key that places keyboard focus directly on the Navigation pane. Move onto the Select a Category button with the Ctrl + Tab key and then press the Tab key repeatedly (usually four or five times) to get there, or press Ctrl + E, Down Arrow, and Shift + Tab. You land on a tree view; *where* in the tree view depends on what you did the previous time you were there.

This tree view has two top-level items, Playlists and Library. They are discussed separately.

Playlists, when expanded, shows Create Playlist, the five most recently created playlists, and Recent e-mail. If you select the Playlists item, then all your playlists are displayed in the Details view; the top five are the most recently created. Close it, if it is open, and ignore it for now.

Library, when expanded, lists various ways to view the displayed media category. Views for the Music category are:

- Recently Added--music files added within the past 30 days

- Artist--artists listed in the Music category

- Album--music CD titles grouped by letter

- Songs--tracks in the Library grouped by artist

- Genre--music types grouped by letter

- year--tracks in the Library grouped by release date

- Rating--tracks in the Library grouped by user rating

These seven views are the seven ways you may display your music collection in the Details pane. For example, expand the Library item if closed and move onto its Album item. Press the Tab key to leap onto the Details pane next door. All of your albums are listed there. Shift + Tab puts you back in the Navigation pane.

In a hurry to switch the Library view for the Details pane? There are three shortcut keys that can help. When either in the Navigation pane or in the Details pane, Ctrl + 7 displays the Artist view. Ctrl + 8 displays the Album view, and Ctrl + 9 displays the Songs view. (Use the numbers on the top row of the keyboard.)

**Access Note:** These keys really don't shorten the process. WMP loses keyboard focus when you switch views while in the Details pane, and you have to move off the Details pane and then back onto it. They work correctly when you are in the Navigation pane.

You may put music onto your computer in different ways: rip (copy) entire music CDs, download songs from the Web, and buy music at online stores. Before long, you may have dozens of albums stored on your computer with hundreds of tracks to enjoy.

Any Library view lets you quickly organize and play your music collection, no matter how extensive, the way you like. For example, Artist lets you view all tracks by individual artists, and Album lets you view tracks in individual albums.

You move through the Navigation pane just like any other tree view. Move vertically with the Home/End, Up/Down, and letter keys. Close/Expand PlayLists or Library with the Left/right keys.

# Details Pane

Move onto a Library view in the Navigation Pane--Artist, Album, and so on. The items in that Library view are displayed in the Details pane. For example, move onto the Album view in the Navigation pane, and your album titles appear in the Details pane.

You can reach the Details pane in two ways. Press the Tab key while on the Navigation pane to move onto the Details pane. Press the pair of keys Ctrl + E and Down Arrow to move onto the Details pane from anywhere. While on the Details pane, press the Shift + Tab key to move back onto the Navigation pane.

You should change the default format in the Details pane to the Details view whenever possible to simplify keyboard navigation. I didn't do that before I browsed through my albums in the Details pane and couldn't find my favorite album, Southern Hummingbird by Tweet. I navigated only vertically through the list view by habit; however, the list view for Album was Tile view by default so albums were listed left to right in rows--rather than as a single column.

Make this change in two steps:

### *Highlight a Library Item*

1. Move onto the Navigation pane with Ctrl + Tab followed by four presses of the Tab key.

2. Move onto Library and expand it with the Right Arrow key if necessary.

3. Move onto a Library view with the Arrow keys.

Change its Default List View

1. Move onto the Select a Category button with the Ctrl + tab key.

2. Move onto the Layout Options button with the Tab key.

3. Move onto the Views split button with the Right Arrow key.

4. Press the Down Arrow key to show the available View options.

5. Move onto the Details view when available and press the Enter key.

You return to the WMP window.

Perform these two tasks for the seven Library views in turn. You only need to do this once! Thereafter, Details view is the default list view for them in the Details pane.

Now you can rely on the usual list navigation keys to browse through the items in the Details pane. Home and End keys move you to the top and bottom of the list. Up and Down Arrow keys move you up or down through the list. Note: when you are on the top item in the list, Up Arrow moves you onto the Search box in the Address Bar, and Down Arrow puts you back in the list. Letter keys move you to the items that start with those letters.

Move onto an item in the Details pane--Artist name, Album name, and so on. A tap of the Enter key displays the albums by that artist, the tracks in that album, and so on.

Alternatively, you can move onto an item in the Details pane--Artist name, Album name, and so on. Pick the Play command from its shortcut menu; then, WMP plays all tracks by that artist, plays all tracks in the album, and so on.

WMP also creates a Now Playing list. You can move onto that list and pick a different item to play.

Other items may show up in the Navigation pane as you work. Play a music CD or a ripped music album. Now Playing appears as a view item between Playlists and Library. It has Details view as its list view in the Details pane--so no change is necessary.

Library, when closed, shows 12 items in the Details pane, the seven basic items and five more: Contributing Artist, Composer, Parental rating, Online Stores, and Folder. These 12 items are arranged in two rows with seven and five items. Its list has Icon view as the default and only possible view. Pick the Composer item for example. A list of composers appears in the Details pane. Now, you may choose any item to play. You must move back onto the Navigation pane and close Library to clear the Details pane.

Manually launch WMP; the Library button is pressed and the Library page becomes the active task as mentioned. Place a music CD into your disk drive. Library remains the active task page. You must press the Now Playing button on the toolbar to make the Now Playing page appear.

# Library Views

The five most useful views for your music media are described next. Rely on those that appeal to your play music style and ignore the rest.

### *View by Artist Name*

Open your Music folder. Album artists are listed in alphabetic order. You pick an artist to display a list of albums by that artist. For example, when I pick Tweet in my Music folder, her two albums are listed: It's Me Again and Southern Hummingbird. I can select either and pick Play from its shortcut menu to play that entire album. Its songs are listed in order by track number.

It works a bit differently in the Library. Move onto the Artist view in the Library list. All artists, not just album artists, are listed in the Details pane.

The name of an artist along with the total number of tracks by that artist and the total play time of their tracks are listed. Move onto an artist and Pick the Play command from the shortcut menu to play all the music by that artist. For example, Tweet has a total of 32 tracks in my Library--15 tracks from the It's Me Again album and 17 tracks from the Southern Hummingbird album--with a total play time of 2 hours, 9 minutes, and 50 seconds. Therefore, I can just pick Tweet to play all her stuff for over two hours.

### *View by Album Name*

In your Music folder, you pick an artist and then pick an album to play. WMP starts up and the Now Playing page appears by default.

In your Library, you may pick an album directly. Move onto the Album view in the Library list. All albums are listed by title (not artist) in alphabetic order in the Details pane. Move onto an album and pick the Play command from the shortcut menu to play that entire album. Library remains the active page so you can switch to another album. (You may press the Now Playing button on the toolbar to make Now Playing the active page so you can play single tracks in the current album.)

### *View by Song Title*

You may recall a song title, or part of a song title, but don't remember where that song lives. In your Library, you may specify a song title directly. Move onto the Songs view in the Library list. All songs are listed by their titles in alphabetic order in the Details pane. For example, 433 song titles are currently listed in my Library--way too many items to browse through manually.

You may rely on the Instant Search box over the list of song titles to filter them. I recall that my favorite Tweet song has Call Me as part of the title. Therefore, I press Ctrl + E to place keyboard focus in the Search box, and I type Call Me to filter my song list. I press Down Arrow to move off the Search box and onto the filtered list.

Instant Search goes to work just as it does elsewhere in Vista. My song list now shows only those titles that contain the two words Call Me--a short manageable list with five items. Moreover, this list puts the artist's name before the song title. Library remains the active page so you can switch to that artist if you wish.

### *View by Genre*

There are different kinds of music--Classical, Folk, Jazz, and so on. Move onto the Genre view in the Library list. WMP scans through all your songs and counts them by type. Song types are listed in alphabetic order in the Details pane. Here are two examples from my Genre list:

Classical; Count 15; Length 1 hour 23 minutes 06 seconds

Soul and R & B; Count 153; Length 10 hours 11 minutes 29 seconds

Pick a genre in the Details pane. All tracks of that type are listed in the Details pane, grouped by artist. You can enter the name of an artist in the Search box at the top of the list to show tracks just by that artist. Alternatively, enter a song title, or part of a title, in the Search box to show only those tracks with that title.

### *View by year*

Here's too much of a good thing. You may list your tracks by release years. Move onto the Year view in the Library list. WMP scans through all your songs and counts them by year of release. Here are two examples from my Year list:

2002; Count 67; Length 4 hours 46 minutes 52 seconds

2000; Count 30; Length 2 hours 04 minutes 38 seconds

Pick a year in the Details pane. All tracks with that release date are listed in the Details pane, grouped by artist. You can enter the name of an artist in the Search box at the top of the list to show tracks just by that artist. Alternatively, enter a song title, or part of a title, in the Search box to show only those tracks with that title.

### *View by Other Ways*

By default, Library lists the most common ways to view a media category. There are other ways as well. Move onto Library in the Navigation pane and pick Show More Views from its shortcut menu. More views are included in the Library list. (Repeat these steps to remove them.)

**Access Note:** (1) WMP may lose keyboard focus after you pick an item in the Details pane and then list navigation keys don't work as expected. Move keyboard focus onto the Navigation pane with Shift + Tab and back onto the Details pane with Tab to regain keyboard control in the list. (2) A screen

reader may fail to read the first item (just below the Search box) as you navigate vertically through the list. You may read it with mouse keys.

# Library Columns

Move onto a view in the Navigation pane, and a table appears in the Details pane. That table may show many columns--often too many to care about. For example, the table for the Album view may show as many as seven items, the table for the Artist view may show as many as four items, and the table for the Songs view shows 14 items and may show as many as 40 items.

**Access Note:** A column may show a graphic or a picture; that column can't be read by a screen reader. For example, album art--a picture--resides in the first column in the Songs view.

Luckily, you may customize a table to meet your preferences. You check or uncheck a column name to add or remove it. You activate the Up button or the Down button to move the column. Here are the steps to alter a table displayed in the Details pane:

1. Move onto a view in the Library tree view.

2. Activate the Layout button.

   Press Shift + Tab three times to reach it; tap the Enter key to display its menu.

3. Pick the Choose Columns item.

   You land on a list of column names.

4. Move onto a column name with the Arrow keys and tap the SpaceBar key to check or uncheck that item.

   That column appears or disappears in the table.

5. Move onto a column name with the Arrow keys; press Tab 1 time to reach the Up button and 2 times to reach the Down button. Tap the Enter key to activate the selected button.

   The selected column moves left or right within the table.

6. Use the Tab key to pick either OK or Cancel to finish and exit the menu.

Now you have the table the way you like it. Rely on the Restore Columns item in the Layout menu if you make a mess of the table or wish to return to the default settings.

**Remark:** You may wish to alter a table to make keyboard navigation more convenient. For example, the track number is the leftmost column in the Songs table. Thus, you can't use letter keys to move through the list. You can either remove that column or move it to the right. Move the column you prefer to navigate with to the far left.

# Library Task Menu

This menu has 13 options. You can create a playlist, pick the media category to display, add items to the library, etc.

# Rip Task Page

Insert a music CD into your disk drive, and don't hold down the Shift key. The album begins to play. Now press the Rip button on the toolbar. The album continues to play, but now the Rip task page is displayed instead of the Now Playing task page.

Use Ctrl + Tab to move onto the bottom pane and press Shift + Tab to move onto the list of songs in the album. Notice that they are checked. That means they will be copied onto your hard disk when you rip the CD. Move onto a song title and tap the SpaceBar key to uncheck that song, and then it won't be copied as you rip the CD. This is how you pick songs to be copied.

Tap the Tab key to move onto the Start Rip button and tap the Enter key to commence the rip process. Music tracks are copied sequentially onto your hard drive.

Stop Rip replaces the Start Rip button; ignore it. Your music CD should eject when the rip task finishes.

**Access Note:** A screen reader may announce toolbar instead of Start Rip or Stop Rip as you move off the bottom pane with the Ctrl + Tab key.

You may try to rip a music CD you already copied onto your hard disk. All tracks appear unchecked so you know you ripped that CD already.

Shift + Tab moves you off the track list and onto the album title; another press moves you onto the Address Bar, which shows Layout and Views. You may ignore both of them.

# Rip Task Menu

Rely on its Format menu to pick the form you want ripped tracks to possess. By default, tracks are saved in the Windows Media Audio format--a proprietary format of Microsoft. Switch to the MP3 format if you intend to copy tracks onto personal music disks to play on standard music CD players.

Rely on the Rip CD Automatically when Inserted menu to specify when WMP will rip a music CD. Pick the Never option so you control when a disk is ripped. You have two ways to initiate the rip process manually: press and hold the Shift key when you insert the music CD into your disk drive, and Autoplay will let you pick the rip command. Alternatively, place the music CD into your disk drive and activate the Rip button on the WMP toolbar.

Make sure that the Eject CD After Ripping check box is checked. Then, once all the tracks on a music CD are ripped, WMP will eject the CD for you. That way, you know that the process finished.

Rely on the More Options dialog box to display a property sheet with 11 tab pages. You land on the Change button in the Rip tab page. Press Shift + Tab to move onto the tab name; Arrow keys move you through the 11 tab names. This is the same property sheet you reach when you pick Tools and then Options from the Menu list as described before.

# Burn Task Page

You rely on the Rip Page and its menu to copy music off CDs or copy pictures and videos off DVDs and place them onto your hard drive. You can do the reverse with the Burn page and its menu: copy music or copy files and folders off your hard drive and place them onto blank (empty) RW disks. (You can copy files and folders onto blank disks only if your computer has a drive labeled RW for CDs or for DVDs.)

To burn a disk means format the disk and thereafter copy files and folders onto that disk; the Burn task page serves as your disk creation tool. You may create personal music disks to play on home or car CD players, and you may make data disks as backups of important files and folders on your computer. You specify either audio disk or data disk in the Burn menu as the type of disk to be created. (Only music disks are discussed.)

**Remark:** You can make personal music disks with WMP in a straightforward manner, but WMP lacks a simple way to make backup data disks. Other third-party programs are much more suited for that task. Try the BurnQuick shareware program available on the Internet for example. It

adds the Burn to Disk item to shortcut menus in Vista; you merely move onto a file or folder and then pick that option to copy the selected item onto a disk.

Start up WMP manually. By default, the Library Task page appears in the middle pane, when no disk is present, and displays the music category. Move onto the Burn button with repeated taps of the Tab key and then press the Enter key. The Burn task page appears in the middle pane, when no disk is present, and displays the music category. Next, move onto the Burn menu with another tap of the Tab key and press the Enter key. Make sure that the Audio CD item is checked.

Luckily, the Burn task page looks like and works just like the Library task page! It consists of three vertical panes: Navigation pane on the left, Details pane in the middle, and List Pane on the right. Navigation and Details panes work together just like they do on the Library task page. You use them to make the list of music items (tracks, playlists, and albums) you want to copy onto disk. WMP shows your list in the List pane. You can alter or rearrange that list if you like. Over these three panes are the same toolbars and boxes found on the Library task page.

You burn (copy) music off your computer onto a disk in two steps. First, you make a list of music selections and then you place them onto a disk. Here are the steps to make a list of tracks to be copied:

1. Move onto the Navigation pane in the usual way.

   Press Ctrl + Tab and repeatedly press the Tab key to get there.

2. Expand the Library tree view if necessary with the right Arrow key.

3. Move onto the Album item.

4. Move onto the Details pane with a press of the Tab key.

5. Move onto an album some of whose tracks you want to copy, and press the Enter key to show its tracks.

6. Move onto a track you want to copy.

7. Pop up the shortcut menu with Shift + F10 and pick Add to Burn List with a press of the letter a.

   That track appears in the List pane.

8. Put any other tracks from the current album in the Burn list.

You may return to the Navigation pane with the Shift + tab key and pick a different album and add tracks from that album to your Burn list.

9. Press Ctrl + Tab to move onto the bottom pane and press Shift + Tab twice to move onto the middle pane and onto your Burn list. Use vertical Arrow keys to browse through your list of music items.

When music selections are copied onto a disk, they will play in the order they appear on the Burn list. You may rearrange items if you don't like the current play order. Move onto an item in the list to be moved, pop up the shortcut menu and pick either Move up or Move Down. Repeat this step until you place the item where you want it.

Check your Burn list a final time. Now you are ready to copy its items onto a disk. Move onto the Start Burn button or merely press Alt + S to begin the burn process. You are prompted to insert an RW disk into your disk drive. The burn begins as soon as you close the drive. The disk will be ejected when the burn process finishes. Now, you have a personal music CD that you can play on any music CD player.

# WMP Music Playlists

Playlists are lists of tracks (songs) that are played together. You may create playlists for different reasons. For example, you may like only a few songs on an album and wish just to play them. You can create a playlist of just your favorite songs, which you would play instead of the original album. You may create a playlist that includes tracks by a favorite artist that occur on different albums. You would play that playlist whenever you want to listen to that artist's songs and avoid the need to switch among albums. You may enjoy songs about the weather. You may make a playlist named Weather Songs and add tracks by different artists on different albums. How cool is that?

By default, tracks in a playlist are played in the order they appear in the playlist. You can change the play order, just shuffle them.

You create a playlist and add tracks to that playlist in two different steps. Here are the details.

# Create Music Playlists

Recall that the Navigation pane on the Library task page has two top-level tree view items: Playlists and Library. Move onto the Navigation pane and expand Playlists if necessary. A text box, Create Playlist, is the top item. Type a name for the playlist you want to create--for instance Favorite Tweet

Tracks--and tap the Enter key. Favorite Tweet Tracks then appears as an item under Playlists. In addition, the Show List Pane button appears; ignore it, for you don't need the List pane. You may either close this new playlist till later or add tracks to it immediately. Activate the Clear List button to close the playlist. Alternatively, read the next topic to add tracks to this new playlist.

**Access Note:** This tutorial ignores the List pane and offers a more convenient way to add tracks to a playlist. This method employs techniques you are already familiar with. Screen readers don't read List pane controls properly, and reliance on three panes instead of the basic two, Navigation and Details, gets a bit awkward.

# Add to Music Playlists

Here's how you may add tracks from any album to any playlist:

1. Move onto the Album view in the Library tree view.

2. Move onto the Details pane next door.

3. Move onto an album and tap the Enter key to display its tracks.

4. Browse through its tracks and stop at a track you want to add to a playlist.

   You may play that track before you add it--just tap the Enter key.

5. Pop up its shortcut menu with the Shift + F10 key.

6. Press d to pick the Add To item.

   A menu of available playlists appears.

7. Move onto the desired playlist and tap the Enter key.

   WMP adds the selected track to that playlist, and you return to the list of tracks in the album.

8. Repeat the previous steps to add as many tracks from this album as you like to any playlist.

There are two albums by Tweet in my Library. I created a playlist named Favorite Tweet Tracks. Then, I added my favorite tracks from both of her

albums to the Favorite Tweet Tracks playlist. Henceforth, I can play that playlist instead of her two albums.

# Remove from Music Playlists

You may decide you added a track to a playlist that you don't like very much. Here's how you remove the unwanted track:

1. Move onto the playlist item in the Playlist tree view.

2. Move onto the Details pane next door.

   Tracks in the playlist are displayed here.

3. Browse through its tracks, and stop at a track you want to remove from the playlist.

4. Pop up its shortcut menu with the Shift + F10 key.

5. Press m to pick the Remove from item.

6. You return to the list of tracks in the playlist.

7. Repeat the previous steps to remove as many tracks from this playlist as you like.

# Play Music Playlists

You can play a playlist in two different ways. Move onto any playlist in the Playlist tree view and pick Play from its shortcut menu. All tracks are played in order. Alternatively, move onto a playlist in the Playlist tree view, move next door onto the Details pane, and pick any track to start play there.

# WMP Key Summary

Windows Media Player (WMP) offers many options and has many shortcut keys to activate them. A mere list of key commands lacks clarity and doesn't tell you the needed details. Thus, the important WMP keys are presented here by topic in an annotated list. In addition, a few topics which lack shortcut keys are included because they round out the narrative and provide valuable supplementary information. Memorize the WMP shortcut keys for quick access to many useful commands in WMP.

# Adjust Music Speed

You may speed up or slow down your music or fast forward through your music. Use one of the four key commands below:

**Ctrl + Shift + G**

Play music faster than normal

**Ctrl + Shift + N**

Play music at normal speed

**Ctrl + Shift + S**

Play music slower than normal

**Ctrl + Shift + B**

Rewind video; doesn't apply to music

**Ctrl + Shift + F**

Turn fast forward on or off for video or music

## Adjust Music Play Order

Tracks listed in a music album or in a playlist are played in the order listed. You can "shuffle" tracks to have variety. You can also repeat an album or playlist when finished.

**Ctrl + H**

Turn Shuffle on or off

**Ctrl + T**

Turn Repeat on or off

## Rate Your Music

No doubt, you enjoy different songs (or videos) to different degrees. WMP lets you assign ratings to items in your Library so you may search for them or categorize them by their appeal. You can leave items unrated or assign them one to five stars--very bad to very good.

Ratings are displayed in the Rating column on the Library page. By default, most items in your Library are automatically assigned auto ratings. They are assigned by non-Microsoft data providers, such as AMG and online stores. You can ignore them and assign personal ratings instead. The color of the stars indicates whether items have auto ratings or personal ratings: blue stars mark auto ratings and bright yellow stars mark personal ratings.

Here's a trick I discovered. Move onto an album in your Music folder and pick Play from its shortcut menu. The album begins to play. Now, move onto any track in that album. Pop up its shortcut menu and pick the Ratings item; a menu of six items appears. Move onto the desired rating and tap the Enter key. You return to the track list and the selected track now has the desired rating. To confirm that, merely display the Ratings menu again and note the checked item.

## Adjust Size of Album Art

A music CD has cover artwork--usually a picture of the artist--and usually has artwork for the separate songs as well. WMP can display the album cover for a music CD as you play that CD, and WMP can play the artwork for a song as you play that track.

WMP downloads the album artwork for a music CD from an online database as you rip that music CD. WMP can't access the album art when you aren't connected to the Internet or when the database doesn't include the album.

**F6**

　　Increase size of album art onscreen

**Shift + F6**

　　Decrease size of album art onscreen

## Adjust Music Volume

You may mute (silence) music while a music CD plays or decrease or increase volume. Use one of the three key commands below:

**F7**

　　Mute, silence but play, or resume normal play

**F8**

Decrease loudness by 10 percent

**F9**

Increase loudness by 10 percent

# Pause or Stop Music Play

You are able to pause and resume play at any time and keep your place in the current track. You can also stop play permanently for a track or an album.

**Ctrl + P**

Pause or resume play

**Ctrl + S**

Stop play permanently

# Skip Music Tracks

Play music: place a music CD in your disk drive, pick a ripped music album in your Music folder, or pick a ripped music album listed on the Library page. The entire album plays. You may wish to hear a favorite track again or skip over an uninspired track. Use one of the two key commands below:

**Ctrl + B**

Play the prior track; move backward 1 track

**Ctrl + F**

Play the next track; move forward 1 track

# Switch Library Pages

WMP keeps track of the task pages you activate. You can return to any of them by their task tabs on the Toolbar. You have, however, another way to revisit task pages. Use one of the two key commands below:

**ALT + LEFT ARROW**

Retrace your steps back through your most recent task pages

**ALT + RIGHT ARROW**

Retrace your steps forward through your most recent task pages

# Switch Library Views

Pick a media category; then WMP shows a list of views for that category in the Library tree view. You can move onto any view and have items displayed in that view in the Details pane. You have, however, another way to pick the top three views. Use one of the three key commands below:

**Ctrl + 7**

Switch to the first view in a media category after Recently Added (such as Artist in Music)

**Ctrl + 8**

Switch to the second view in a media category after Recently Added (such as Album in Music)

**Ctrl + 9**

Switch to the third view in a media category after Recently Added (such as Songs in Music)

# Switch WMP Views

WMP has two important views you should know about: Full Display and Full Screen. The default view, Full Display, shows the entire WMP program window and all WMP controls in that window. You should rely on the Full Display view when you play a music CD. On the other hand, Full Screen view hides the WMP program window and most WMP controls. You should rely on the Full Screen view when you play a video DVD. The video fills the screen instead of WMP. Here are the steps to invoke the Full Screen view:

1. Play (or pause) a video, TV show, DVD, or song with a visualization.

2. Then press the Alt + Enter key to switch views.

   Full Screen makes videos, DVDs, and pictures fill the entire screen. Rely on the playback controls near the bottom of the screen when in Full Screen view.

3. Press the ESC key when finished.

WMP returns to Full Display view.

Rely on Full Screen Lock when you want Full Screen to stay in effect. You might want to do that at a party so guests don't use your computer while your music or video plays.

1. Play music or a video and switch to Full Screen.

2. Activate the Lock Full Screen button.

3. Type a four-digit personal identification number, and then pick OK.

You may turn off Full Screen in two ways: Activate the Unlock Full Screen button, type your PIN, and pick OK. Alternatively, just restart your computer.

# Resize WMP Views

You may have WMP automatically resize its current view to fit a video. WMP can show a video at the best size (or the percentage that you set). Make sure that the two resize options are on:

1. Pop up the View menu for WMP with Alt + V.

2. Pick the Video Size item.

    A menu appears.

3. Make sure that Fit Video to Player on Resize and Fit Player to Video on Startup are both checked.

    They are the recommended settings. WMP resizes to show the video at the best size (or the percentage that you set). WMP also resizes the video when you manually resize the view.

4. Pick a scale size: 50 percent, 100 percent, or 200 percent.

You may also manually alter the scale size at any time. Use one of the three key commands below:

**ALT + 1**

    Zoom to 50%

**ALT + 2**

Zoom at 100%

**ALT + 3**

Zoom to 200%

# Pick Music Visualizations

Recall that the Now Playing page consists of two vertical panels: the Video and Visualization panel on the left and the List panel on the right. The left panel displays pictures, videos, or decorative visualizations (animated wallpapers) that move in time with music. Follow these steps to pick a visualization in Full Display view:

1. Play a music track.

2. Make the Now Playing page the active task page if necessary.

3. Display the Now Playing menu.

4. Display the Visualizations menu.

5. Check the top item No visualization to turn it off; check the next item Album Art to show the artwork for a track as it plays.

6. Alternatively, pick a menu item to display a visualization category and pick an item.

**Access Note:** There are no shortcut keys for visualizations.

# Show Captions or Subtitles

A video or a DVD movie may possess captions or subtitles. You may show or hide them. Turn captions and subtitles on or off with Ctrl + Shift + C. You may also turn this option on or off in the WMP play menu:

1. Display the WMP pop-up menus with a press of the Alt key.

2. Display the Play menu.

3. Display the Lyrics, Captions, and Subtitles menu.

4. Move onto either the On or Off item and press the Enter key.

# CHAPTER 18
# COMPUTER KEYBOARD LAYOUT

You interact with your COMPUTER via a keyboard; it lets you type commands and text. A standard full-sized computer keyboard has 104 keys. This chapter, intended for the beginner, describes all the keys and their locations. Explore your keyboard with your computer turned off. The next chapter lets you practice basic keyboard tasks.

## Computer Keyboard Layout

The standard computer keyboard has five groups of keys. The Main keyboard has 61 keys; it occupies the left two thirds of the keyboard. A row of 13 keys lies directly over and in line with the Main keyboard. The Column in the middle has 10 useful keys, and there's a row of three infrequently used keys above that column. The block of keys at the far right has 17 keys. There are no keys above this group of keys.

**Access Note:** (1) A screen reader can indicate a key as you tap it. Pay attention to this key echo. Use this feature to familiarize yourself with the keys and their placement on your keyboard. (2) There are cut-and-paste keyboards that let you rearrange the various key blocks. These keyboards are of benefit to left-handed users and to persons with single-hand impairment. (3) There are keyboards that fold up which makes them easier to carry and use with a laptop computer. (4) The Natural Keyboard, manufactured by Microsoft, has an ergonomic design that speedy typists love and that motor-impaired users may find more accessible.

# The Main Keyboard (AlphaNumeric Keys)

This part of the keyboard extends about 11 inches from left to right and about 5 inches from front to back. It contains five rows of keys, 61 keys in all.

The front row contains eight keys, the SpaceBar key with three keys to its left and four keys to its right. It is laid out like this:

Ctrl Win Alt SpaceBar Alt Win Ctx Ctrl

Ctrl denotes the Control key, Win denotes the Windows Logo key, Alt denotes the Alternate key, and Ctx denotes the Context key.

The row behind the front row contains 12 keys, 10 typewriter keys flanked by a pair of double wide Shift keys. It is laid out like this:

Shift 10 keys Shift

The middle row contains 13 keys, 11 typewriter keys with the double wide CapsLock key to their left and the double wide Enter key to their right. It is laid out like this:

CapsLock 11 keys Enter

There is a tiny light under the CapsLock key that lights up when this key is locked. The other big key, the Enter key, is labeled with the word "Enter" or sometimes with a curved arrow.

**Remark:** This key is called the Enter key because it descended from a machine on which an operator entered numbers. Whereas, a typewriter sported a Return key so a typist could return to the left side of the page. This key performs both of these functions and a lot more.

The middle row is called the Home Row because that's where your fingers should rest when you type. Place your left index finger on the F key and your right index finger on the J key. Usually, the Home row keys F and J possess a raised dot or mark so that you can feel them as different.

**Access Note:** You can place peel-and-stick locator dots on specific keys to aid in their location by touch. In addition, braille and large print keytop stickers are available for the entire Main keyboard.

The row behind the Home row contains 14 keys, 10 typewriter keys with the double wide Tab key to their left and the two Bracket keys and the BackSlash key to their right. It is laid out like this:

Tab 10 keys 2 Brackets BackSlash

This row is usually called the QWERTY Row because it has the letters q w e r t y within it.

The last row, the back row, also contains 14 keys, 10 digit keys with the Accent key to their left and the Dash, Equal, and BackSpace keys to their right. It is laid out like this:

Accent 10 digits Dash Equal BackSpace

This row is usually called the Number Row because it contains the 10 digits, 1 through 9 and 0.

The computer keyboard lacks a Carriage Return key, for it is not needed. Your COMPUTER and its printer work in a somewhat different fashion than your typewriter or braillewriter. The Enter key to the right of the Home row, its replacement, is something quite different. It lets you enter all kinds of commands into your COMPUTER, and it lets you break the text within a document into paragraphs.

# The Four Pairs of Modifier Keys

Here is a surprise. A computer keyboard has four pairs of Modifier keys instead of one pair: two Alternate keys, two Windows Logo keys, two Control keys, and two Shift keys. Use the left key of a pair with the left hand, and use the right key of a pair with the right hand; both keys in a pair do the same thing.

**Access Note:** (1) The keyboard for a laptop COMPUTER most often has the left Modifier keys but lacks the right Modifier keys because the keyboard is usually rearranged so other keys occur where the right Modifier keys would normally occur. This rearrangement of keys is nonstandard and is usually very awkward. (2) Programs that provide access for the disabled often distinguish between the left and right Modifier keys. For example, you press at the very same time, the Left Alt key, the Left Shift key, and the Print Screen key to switch high display contrast on and off--an access feature in Vista often appreciated by the low-vision user.

The Alternate keys (labeled Alt) are next to the SpaceBar key. The logo keys (labeled Win) in turn are next to the Alt keys. The control keys (labeled Ctrl) in turn are next to the Win key on the left and the Ctx key on the right. That is, there's an extra key on the right; the context key (labeled Ctx) lies between the Win key and the Ctrl key. In other words, you have the row of keys:

Ctrl Win Alt SpaceBar Alt Win Ctx Ctrl

The Shift keys are double wide keys that flank the row of 10 typewriter keys located behind the front row. You rely on them to capitalize letters.

Sometimes, you need to press and then quickly release a key; that is, you must tap a Key. A tap of a key on a nice keyboard makes a click. This sound lets you know that you really tapped the key. (You don't need to press the key hard; a gentle tap works just as well as brute force.)

Often, just a tap of a key does some worthwhile task. For example, you tap a Letter key to type that letter; you tap the Alt key while in an Office 2007

program to activate the Ribbon bar of that program. (The phrase Press a Key in most Vista documentation means Tap a Key.)

Other times, you need to press and hold a key and then tap another key. For example, you press and hold the Shift key and then tap a Letter key to capitalize that letter.

Typically, you use a single Modifier key with another key to make a new key combination. In this situation, you use a Modifier key in three steps:

1. Press and hold a Modifier key.

2. Tap the other key.

3. Release the Modifier key.

This 3-step process--press and hold a key, then tap another key, and finally release the first--is expressed, in this book and in other Vista documentation, via a plus sign ( + ) between the designations for the two keys. For example, Ctrl + Esc means press and hold the Control key, then tap the Escape key, and finally release the Control key. (This key combination as well as the two Win keys opens the Start window in Vista.)

Sometimes, you need to press and hold two modifier keys, then tap another key, and finally release the modifier keys. For example, you press and hold the Alt and Ctrl keys and then tap the Del key to display the Windows Logon screen.

Sometimes, you need to tap two keys in succession. This is indicated via a comma (,) in this book and in other Vista documentation. For example, Alt, F means tap the Alt key, and then tap the F key. (This 2-key sequence in an Office 2007 program pops up the window for the Office button.)

The CapsLock key, a double wide key, left of the Home row is a convenience if you understand its purpose. It lets you type long sequences of upper-case letters without the need to hold down the Shift key while you type. Suppose that you wish to type the sentence:

 THE LAZY DOG JUMPED OVER THE QUICK BROWN FOX.

entirely in capital letters. You must switch left and right Shift keys several times to accomplish this feat of finger dexterity. Instead, tap the CapsLock key, located to the left of the Home row, to lock it. You are then in upper-case mode. Now, just type the letters in the sentence. Then tap the CapsLock key to unlock it--to return to lower-case mode.

The CapsLock key is a great annoyance if you misuse it. For example, if you forget to release the CapsLock key, then you continue to type capital letters. The CapsLock key is quite handy if you properly use it. For example, press and hold the Shift key, when the CapsLock key is on, to get a lower-case letter--the CapsLock state is turned off for that--a very convenient feature if you need to type most everything capitalized except for an occasional letter.

The CapsLock key only affects letters; it neither changes digits into symbols nor punctuation marks into other characters. You must bring these characters into existence with the Shift keys!

**Access Note:** A screen reader may announce the new state of the CapsLock key as you tap it. Pay attention to the message. It may assert, when tapped, either Caps On or Caps Off.

# The Long Row of Keys (Function Keys)

There is a row of 13 keys over the Main keyboard. It contains the Escape key (labeled Esc) to the far left and the 12 so-called Function Keys, divided into three groups of four keys, to the right. It is laid out like this:

Esc F1-F4 F5-F8 F9-F12

You can tap any one of these keys by itself or in conjunction with a Modifier key. The Alternate keys are written as Alt + Esc and Alt + F1 through Alt + F12; the Control keys are written as Ctrl + Esc and Ctrl + F1 through Ctrl + F12; and the Shift keys are written as Shift + Esc and Shift + F1 through Shift + F12. These notations mean: (1) First press and hold the required Modifier key (Alt, Ctrl, or Shift); (2) then tap the Esc key or the desired Function key; and (3) finally release the Modifier key.

The Esc key usually lets you change your mind--leave a menu, halt a task in progress, and so forth--hence the name Escape key. For example, a tap of the Ctrl + Esc or either Win key opens the Start window, then a tap of the Esc key closes that window.

Vista assigns common functions (tasks, commands, and so forth) to the F1 through F12 keys and their modified counterparts--hence the name Function key. For example, a tap of the F1 key usually pops up help for the active program; a tap of the Alt + F4 key usually exits the active program.

These 52 Function key combinations--13 unmodified keys, 13 Alt modified keys, 13 Ctrl modified keys, and 13 Shift modified keys--give you access to a vast array of common and exotic features from which you may choose at

will. You will recall with ease your favorites after a while; you can look up others when they are needed.

**Remark:** The tasks and commands assigned to Function keys by Vista are the same tasks and commands assigned to Function keys by other programs. This consistency of key chores is a major benefit of Vista. In the old days, different programs used Function keys for dissimilar actions which frustrated users and taxed their memories.

# The Column of Keys (Navigation Keys)

The Column of keys is located to the right of the Main keyboard and is 3-keys wide and about 5 inches from front to back. It contains two clusters of keys, 10 keys in all.

The top cluster of keys contains six keys arranged in three columns. It is laid out like this:

    Column 1: Ins key over Del key
    Column 2: Home key over End key
    Column 3: PgUp key over PgDn key

Ins is short for Insert; Del is short for Delete; PgUp is short for Page Up; and PgDn is short for Page Down.

The bottom cluster of keys contains four keys arranged in three columns. It is laid out like this:

    Column 1: Left arrow
    Column 2: Up arrow over Down arrow
    Column 3: Right arrow

The Down arrow is located between the Left arrow and the right arrow, and the Up arrow is over the Down arrow.

The two keys Ins and Del let you alter text and are, therefore, called Edit Keys. The other eight keys let you move through text and are, therefore, called Navigation Keys.

**Access Note:** A screen reader may indicate an Edit key or Navigation key as you tap it. Pay attention to this key echo. Use this feature to familiarize yourself with these keys and their placement on your keyboard. However, turn off the key echo when you really intend to use these keys, for you get both the key echoes and the text--quite annoying and confusing.

# The Short Row of Keys (Obsolete Keys)

There is a row of three keys over the Column of keys. It is laid out like this:

PRINT SCREEN, SCROLL LOCK, PAUSE/BREAK.

### The Print Screen Key (or PRT SCN)

Originally, a tap of this key would send the current screen of text to your printer. Now, a tap of this key captures an image of your entire screen (a "screen shot") and copies it to the Clipboard in your computer's memory. It provides a simple and quick way to save a display full of text and images. You can paste the saved display contents into any graphics program and then print it. (A tap of the Alt + PrtScrn key captures just the contents of the active window.)

**Remark:** Make sure that the SCROLL LOCK key is off when in the Excel program else that program will not scroll properly. More obscure is SYS RQ, which shares the key with PRINT SCREEN on some keyboards. Originally, SYS RQ was intended to be a "system request," but this command is not used in Vista.

### SCROLL LOCK (or SCR LK)

The middle key lacks a useful function in Vista. So, just ignore this key.

**Access Note:** A screen reader may indicate the new state of the ScrollLock key as you tap it. Pay attention to the state message. It may assert, when tapped, either Scroll On or Scroll Off. Make sure that the ScrollLock key is off for normal display activity.

### The Pause/Break Key

The right key is rarely used by itself, but has a function when teamed up with either Win key. A tap of a Win + Break key displays the System Properties dialog box. (You can safely ignore this technical tidbit.)

# The Block of Keys (Numeric keypad)

The Block of keys is located to the right of the Column of keys. It is 4-keys wide; it contains five rows of keys; and it is about 5 inches from front to back. There are 17 keys in all; three keys are doublewide keys. This Block of keys duplicates the 10 keys in the Column of keys in a different and sometimes more convenient layout and includes seven more keys to aid in math.

Recall that the Long row of keys is located over the Main keyboard, and the Short row of keys is located over the Column of keys. Over the Block of keys is empty space where more keys may someday reside.

The Block of keys can act as a Number pad or as a Navigation pad. The key in its upper-left corner, called the NumLock Key, lets you switch between Number pad and Navigation pad operation. The Block of keys works as a Number pad when the NumLock key is on and works as a Navigation pad when the NumLock key is off. There is a tiny light under the NumLock key that lights up when this key is locked.

There is a key within the Block of keys that serves as a Center key. Sometimes the Center key possesses a raised dot or mark so that you can feel it as different.

The Center key is at the center of a square of 9 keys that has a dual role; the square of keys may operate as a Number pad or as a Navigation pad (alias Cursor pad).

The Number pad resembles a telephone keypad but inverted; that is, the 1-2-3 row is at the bottom rather than at the top. The Center key is the 5-key at the center of the middle row.

**Access Note:** A screen reader may indicate the new state of the NumLock key as you tap it. Pay attention to the state message. It may assert, when tapped, either NumLock On or NumLock Off.

Vista sets the Block of keys to Navigation pad operation. You can tap, however, the NumLock key at the upper-left corner of the Block of keys to set the keys to Number pad operation instead. Now, you can tap the number keys. Tap the NumLock key again when you want to navigate.

The NumLock key is a great annoyance if it is set opposite to your preference. For example, you continue to type numbers if it is set to Number pad operation, when you really mean to move the cursor. However, the NumLock key is quite handy if you properly use it. For example, press and hold the Shift key when the NumLock key is on when you want to move the cursor--the NumLock state is turned off for that--a very convenient feature if you need to mostly type numbers except for an occasional cursor movement.

### *Number Pad Operation*

The Number pad is the Block of keys with the NumLock key on. Use the Number pad when you need to enter lots of numbers into a spreadsheet or accounting program. Here it is:

The front row of the Number pad contains three keys, the 0 key with two keys to its right. It is laid out like this:

Zero Decimal Enter

They denote the digit 0, the decimal point, and the Enter key.

The row behind the front row contains four keys, three number keys and the Enter key. It is laid out like this:

One Two Three Enter

They denote the digits 1, 2, 3 and the Enter key.

The middle row contains four keys, three number keys and the Plus key. It is laid out like this:

Four Five Six Plus

They denote the digits 4, 5, 6 and the Addition key.

The row behind the middle row contains four keys, three number keys and the Plus key. It is laid out like this:

Seven Eight Nine Plus

They denote the digits 7, 8, 9 and the Addition key.

The last row, the back row, contains four keys, the NumLock key and three math keys to its right. It is laid out like this:

NumLock Slash Star Minus

They denote the NumLock key, the Division key, the Multiplication key and the Subtraction key.

### *Graphic Pad Operation*

The Main Keyboard lets you type exactly 94 print characters; its keytops are imprinted with these characters. However, the 104-keyboard actually lets you type a total of 254 print characters--the 94 print characters located on the Main keyboard and another 160 graphic characters. The Block of keys lets you type all of these 254 characters via the Alt key. Here are the steps:

 1. Make sure that NumLock is on.

2. Press and hold either Alt key.

3. Type a number from 1 to 254 on the Block of keys.

4. Release the Alt key.

The standard 94 print characters are entered with the Alt + 33 through Alt + 126 keys. Often useful, but unusual, print characters are entered with the other Alt + Numbers. Examples: Alt + 1 through Alt + 10 display, respectively: ☺ (White Smiling Face), ☻ (Black Smiling Face), ♥ (Black Heart), ♦ (Black Diamond), ♣ (Black Club), ♠ (Black Spade), • (Bullet), ◘ (Inverted Bullet), ○ (White Circle), and ◉ (Inverted White Circle.

### *Navigation Pad Operation*

The Navigation pad (alias Cursor pad) is the Block of keys with the NumLock key off. Use the Navigation pad when you need to browse through text. Here it is:

The front row of the Navigation pad contains three keys, the Insert key with two keys to its right. It is laid out like this:

Ins Del Enter

They denote the Insert, Delete and Enter key.

The row behind the front row contains four keys, three Navigation keys and the Enter key. It is laid out like this:

End Down PgDn Enter

They denote the End key, the Down Arrow key, the Page Down key and the Enter key.

The middle row contains four keys, three Navigation keys and the Plus key. It is laid out like this:

Left Center Right Plus

They denote the Left Arrow key, the middle key that is inactive, the Right Arrow key and the Addition key.

The row behind the middle row contains four keys, three Navigation keys and the Plus key. It is laid out like this:

Home Up PgUp Plus

They denote the Home key, the Up Arrow key, the Page Up key and the Addition key.

The last row, the back row, contains four keys, the NumLock key and three math keys to its right. It is laid out like this:

NumLock Slash Star Minus

They denote the NumLock key, the Division key, the Multiplication key and the Subtraction key.

# The Special Keys

There are a few keys that work in special ways.

### The Four Keyboard Toggle Keys

You may have noticed the similarity between the CapsLock key and the NumLock key. A tap of either key switches its feature (capital letters or numbers) on and off.

A key or key combination that changes something with a single tap and changes it back with another tap or turns a feature on and off is called a Toggle Key. Your keyboard has four toggle keys: CapsLock key, the ScrollLock key, the NumLock key, and the Insert key. The CapsLock key, a double wide key, is left of the Home row; the ScrollLock key is the middle key in the Short row of keys; the NumLock key is in the upper-left corner of the Block of keys; and the Ins key, a double wide key, is in the lower-left corner of the Block of keys. The Ins key is the same key as the 0-key but with the Navigation pad activated; that is, with NumLock off.

**Access Note:** A screen reader may announce the new state of a toggle key as you tap it. Pay attention to this state message.

Vista and other programs have dozens of keys and key sequences that act as toggles. For example, in Vista, tap the key combination Left Alt + Left Shift + Prt Scr to turn high display contrast on and off; in Microsoft Word, tap the Ctrl + B key to turn Bold on and off.

### The Hot Keys

A screen reader can automatically announce keys as they are tapped and can automatically read text and graphic elements as they are displayed. However, a blind user also needs a way to review or reread material already on the computer display. A screen reader provides special keystrokes,

called Hot Keys that let you browse displayed text and graphic elements. For examples, a screen reader may use the Ctrl + W key to read the current word and the Ctrl + S key to read the current sentence.

Vista and other programs lay claim to lots of the available keystrokes. For example, the Alt + Letter keys are used to pop up Ribbon tabs in Office 2007 programs, and the Ctrl + Letter keys are assigned tasks by Vista and other programs.

There are three ways for a screen reader to assign a hot key: let a key do double duty, pick a weird key, or make up a new key. Here are the details in brief.

You can assign, for example, the Ctrl + C key to read the character at the cursor even though Vista lays claim to it as the Copy command. The trick is: tap the Ctrl + C key when you want to read the current character, but tap a special Pass key and then tap the Ctrl + C key when you want to have Vista copy something. The special Pass key passes the keystroke along to Vista. This approach lets you pick any key that you like as a hot key. However, its disadvantage is that you must often type two keys instead of a single key to make Vista or a program do something.

It is best to select a key as a hot key that Vista and other programs never need, but these keys are rare indeed. For example, Vista lays claim even to the Ctrl + Alt + Letter keys as shortcut keys for Desktop shortcuts. These keys let you start programs with single key taps.

A screen reader can use a particular key as a new Modifier key. The Ins key in the Block of keys is usually chosen for this purpose. You press and hold this Ins key, tap another key, and finally release the Ins key. You may use, for example, the Ins + Center key to read the current word. This approach is often best for two reasons. You avoid key conflicts with Vista and other programs and avoid the need to type a Pass key.

### *The Mouse Keys*

A computer mouse requires a great deal of hand-eye coordination. That is you must push the mouse around while you watch its pointer traverse the computer display and stop it when the pointer is precisely over a specific item or spot. This is very difficult or impossible to do if you are motor impaired or visually impaired. The Accessibility Options in Vista let the motor-impaired user tap hot keys in the Block of keys to move the mouse pointer and click or double click the mouse. Hot keys in a screen reader let a blind user move the mouse pointer to a specific item (like the next icon or next button) and click or double click the mouse. Therefore, you can

perform mouse tasks even though you are unable to manipulate the physical mouse.

# Key Names and Designations

Commonly used keys are given names and handy abbreviations. They are:

***Modifier Keys***

Alt key -- either Alternate key

Ctrl key -- either Control key

Shift key -- either Momentary shift key

Win key -- either Windows Logo key

***Arrow Keys***

Left key -- either left Arrow key

Right key -- either right Arrow key

Up key -- either up Arrow key

Down key -- either down Arrow key

***Extreme Keys***

Home key -- either Home key

End key -- either End key

***Page Keys***

PgUp key -- either Page Up key

PgDn key -- either Page Down key

***Tab Keys***

***Tab key -- the forward Tab key***

Shift + Tab key -- the reverse Tab key

### *Edit Keys*

BS key -- the BackSpace key

Del key -- either Delete key

Ins key -- either Insert key

### *Toggle Keys*

CapsLock key -- the Capital Letter lock key

Ins key -- either Insert key

NumLock key -- the Numeric Lock key

ScrollLock key -- the Scroll Lock key

### *Other Keys*

Ctx key -- the single Context Menu key

Win key -- either Windows Logo key

BackSlash key -- the BackSlash character

Enter key -- either Enter key.

Esc key -- the Escape key

SpaceBar key -- the Space key

# Keyboard Focus

Vista and other programs present multiple items at the same time on the computer display. These various items (the primary subject of this tutorial) can respond to keyboard activity. However, only a single item at a time can respond to keyboard activity. The item that is currently able to respond to keyboard activity is said to possess the Keyboard Focus--often called the Input Focus or the System Focus.

The visual form of the keyboard focus moves and changes with the current context. That is, the item with the keyboard focus is made to look different-- has a different color, has a dotted outline, has a darker border, etc.--so a sighted user can immediately see which item and what kind of item

possesses the keyboard focus. For example, in a text box it appears as a text cursor or insertion point that marks the place where text is about to be typed. In a dialog box, it appears as a dotted outline that surrounds the control about to be activated.

# Navigation Cursors

The keys in the Block of Keys and the Tab key in the Main keyboard let you move the keyboard focus from item to item. Which keys let you move the keyboard focus depend on the current context. For example, you rely on the Up/Down keys to move the keyboard focus through items in a vertical list and on the Left/Right keys to move the keyboard focus through items in a horizontal list. You rely on the Tab key and the Shift + Tab key on the Main keyboard to move the keyboard focus through parts of the Desktop or through controls in a dialog box--a form-like window. The keys that let you move the keyboard focus are called Navigation Keys.

The visual cues that mark the current position onscreen or the currently highlighted item are called cursors. Vista is ready to perform a different task when the keyboard cursor assumes a new visual form. The visual appearance of the keyboard cursor is determined by its position on the computer display and by the task to be performed. That is, the cursor lets a sighted user see where the keyboard focus is located on the computer display and see what activity is in progress. Next, the names of some important cursor types, how they look, and what they mean are presented.

### Text Cursor

This visual cue looks like a short vertical bar that blinks. It marks the spot in a document or in a text box where text is about to be typed.

### Highlight Cursor

This visual cue looks like a colored patch, rectangular in shape. In a menu or list it overlays the selected item.

### Dotted Cursor

This visual cue looks like a dotted outline, rectangular in shape. In a dialog box, it surrounds the item to be activated.

**Access Note:** A screen reader may possess a hot key that announces the current item--the item that possesses the keyboard focus. Frequently use this hot key to verify which item currently has the keyboard focus.

You don't really need to pay much attention to the visual form of the current cursor. Its appearance is discussed so you can communicate effectively with sighted peers. A sighted friend might ask you, for example, to move the dotted rectangle to the next item in a dialog box. You just tap the Tab key in response.

## The Default Item

Vista and other programs give some predetermined item in the current context the keyboard focus. This predetermined item is called the Default Item, and it is usually the item most frequently accessed by the typical user in that context. For example, the default item, when you go to stop your COMPUTER, is the Shut Down item. The default item, when you jump to the menu bar of a program, is the File item, for you most frequently wish to do something with a file--document, picture, or whatever the program handles.

# CHAPTER 19
# COMPUTER KEYBOARD OPERATION

A keyboard lets you type commands and text. This chapter, intended for the beginner, describes the tasks that you can perform with a keyboard and lets you practice them. You will give a few commands to Vista and will type text in WordPad, a mini word processor that comes with Vista.

## Keyboard Repeat

Please notice that a computer keyboard has a Key Repeat feature. That is, press and hold any key, then the key is typed repeatedly until you release it. This feature is sometimes an advantage; for instance, press and hold the Dash key to make a dashed line. Other times, it is an annoyance because you can type an accidental sequence of repetitive characters by merely resting your finger on a key too long. Vista lets you adjust the key repeat rate or turn it off. Here are the steps to accomplish that:

1. Display the Control Panel in Classic view.

2. Pick the Ease of Access Center item.

   A window appears filled with links.

3. Activate the linked labeled Make the Computer Keyboard Easier to use.

Another window appears filled with links.

4. Activate the linked labeled Keyboard Settings.

A property sheet with two tab pages appears.

5. You can adjust key repeat rate on the Speed tab page.

# Keyboard Tasks

You can do five essential things with the keyboard. They are next discussed in brief.

### Tap Keys

Press and quickly release keys. They are accepted on the down strokes. For example, tap keys on the main keyboard to type text. Tap either Alt key to activate the Menu Bar in older Office programs or to activate the Ribbon Bar in Office 2007 programs. Tap either Win key to display the Start window in Vista.

### Hold Keys

Press and don't release them. You hold down Modifier keys--Alt, Ctrl, Shift, or Win--and then tap other keys to enter useful key combinations. For example, Win + D places keyboard focus on the Desktop; Win + B places keyboard focus on the Sys Tray.

### Repeat Keys

Hold them to repeat their actions. For example, hold the Dash key to make a line of dashes. Hold the Del key to delete (remove) text.

### Tap navigation keys

They reposition the keyboard focus. For example, tap Arrow keys to move one position in the direction of the arrows.

### Tap Selection Keys

Shift + Navigation keys highlight the text moved over. This process selects the text. Then, you can do something with the selected text (like copy it) or something to it (like make it appear bold).

# Text Keys

The keys located on the Main keyboard are called Text Keys because they let you type text. Taps of Text keys enter the corresponding characters and typically show them on the computer display. However, the characters produced by the SpaceBar, Tab and Enter keys aren't usually displayed as characters. Instead, they usually cause White Space to appear on the computer display. In some contexts, Text keys are used for navigation or for activation of commands.

Follow these steps to launch the WordPad program so you can type a few words and experiment with that text:

1. Tap either Win key to display the Start window.

   Vista places the text cursor in the Instant Search text box.

2. Type WordPad and wait a moment.

3. Tap the Enter key if the WordPad program has keyboard focus in the Results list. Tap the Tab key three times if not and then tap the Enter key.

   Vista starts up the WordPad program and displays its program window with an empty work area.

4. Type a few words of text.

5. Tap the Arrow keys to move through your text.

6. Tap the Del key or the BackSpace key to remove (delete) a character at a time.

7. Tap the Alt + F4 key when finished to exit the WordPad program.

## Access Keys

Access keys are the underlined letters in menu titles, in menu items, and in dialog boxes. Alt + Access letters display menus; just access letters pick menu items. Alt + Access letters in dialog boxes activate dialog box items.

Launch the WordPad program as above so you can experiment with the access keys for its menus:

1. Tap Alt + F to display the File menu.

   A vertical list of file options appears.

2. Tap the Arrow keys to move through the list of options.

Notice that every option has a letter as an access key. That is, you can type just that letter to pick that option.

3. Tap the Alt key to close the File menu when finished.

4. Tap the Alt + F4 key to exit the WordPad program.

# Modifier Keys and Toggle Keys

The standard Modifier keys (Alt, Ctrl, Shift, and Win) are located along the front row of the Main keyboard. A modifier key may perform a task by itself or with another key. For example, tap just the Alt key in WordPad to move keyboard focus onto the Menu bar; tap the Alt key + Letter key to display a menu in WordPad with that access letter.

Toggle keys, when tapped, switch between states. For example, a tap of the CapsLock key switches between lower- and upper-case letters. A tap of the NumLock key switches between number keys and Navigation keys in the Block of keys.

# Shortcut Keys

These keys are usually key combinations that give quick access to frequently performed tasks or activities. The Ctrl + Letter keys and Function keys and their modified forms are usually picked for shortcut keys by Vista and other programs.

The Application key (often called the Context key) replaces the more cumbersome Shift + F10 key that pops up context menus. The Windows keys (Win keys for short) replace the more cumbersome Ctrl + Esc key that opens the Start window.

# Navigation Keys

Navigation keys let you move the keyboard focus in a particular direction to a specific item or place on the computer display. Navigation is the easiest way to identify or access a displayed item. There is one Navigation key found in the Main keyboard and eight Navigation keys found in the Column of keys and in the Block of keys.

Movement of the text cursor doesn't change any text; it lets you browse through the text.

The current context determines the behavior of Navigation keys. These keys are described in the context of text navigation within WordPad (or in Microsoft Word) because this is the most intuitive and common situation.

### Arrow Keys

Left key -- move left a character; Ctrl + Left key -- move left a word.

Right key -- move right a character; Ctrl + Right key -- move right a word.

Up key -- move up a line; Ctrl + Up key -- move to the top of the current paragraph; Ctrl + Up key, Ctrl + Up key -- move to the top of the prior paragraph.

Down key -- move down a line; Ctrl + Down key -- move to the top of the next paragraph; Ctrl + Down key, Left key -- Move to the end of the current paragraph.

Arrow keys move the keyboard focus by characters or lines in the directions of the Arrow keys. Ctrl + Arrow keys move the keyboard focus by words or paragraphs in the directions of the Arrow keys.

### Page Keys

PgUp key -- move up a screen; Ctrl + PgUp key -- move to the top of the current screen.

PgDn key -- move down a screen; Ctrl + PgDn key -- move to the bottom of the current screen.

Page keys move the keyboard focus by full screens in the directions of the Page keys. Ctrl + Page keys move the keyboard focus by pages in the directions of the Page keys.

### Extreme Keys

Home key -- move to the far left on a line; Ctrl + Home key -- move to the top of a document.

End key -- move to the far right on a line; Ctrl + End key -- move to the bottom of a document.

Extreme keys move the keyboard focus to the extremes of a line. Ctrl + Extreme keys move the keyboard focus to the extremes of a document. Tap the Ctrl + End key, then the page number on the Status line is the number

of the last page in the document; this page number tells you the size of the document.

### *Tab Keys*

Tab key -- move to the next tab stop; Shift + Tab key -- move to the prior tab stop.

In a dialog box: The Tab key moves the keyboard focus from item to item in a specific order. The Shift + Tab key moves the keyboard focus in reverse order as established by the Tab key.

# Text Selection Keys

Selection keys let you highlight items to be acted upon by some command. The eight Navigation keys found in the Column of keys and in the Block of keys modified with the Shift key are the standard Selection keys. These eight selection keys let you move the keyboard focus over items--words in a document; file names in a list--and highlight them so you can work with them.

There is another selection key. The Ctrl + A key is a global selection key; that is, it lets you select all the items in the current context. For example, the Ctrl + A key selects all the text when you are in a WordPad document and selects all the file names when you are in a list of file names.

A piece of consecutive text is called a Block of Text. It may contain a single character, word, line, or paragraph. However, a block can extend as far as you like.

Here is the general procedure to select (highlight) a block of text of any size within WordPad (or Microsoft Word).

1. Move onto the character or place where you want to start the selection.

   Employ the Arrow keys or whatever Navigation keys suit your mood.

2. Hold the Shift key.

   You are about to create the selection.

3. Move onto the character or place where you want to stop the selection.

   All text passed over is selected.

4. Release the Shift key.

   The selection stops.

5. Invoke the action to be applied to the highlighted text.

For example, you can tap either Del key to erase all the highlighted text or you can immediately begin to type new text that replaces all the highlighted text. Alternatively, tap any unmodified Navigation key to deselect the just highlighted text. (A tap of the Left/Right key deselects the text and places the keyboard focus at the start/end of the deselected text.)

**Access Note:** The selected text is highlighted--displayed in a distinctive color. A screen reader has a hot key that announces all the selected text. You are strongly urged to read the selected text before you perform some action on it. (Check for stray space characters and punctuation marks after a delete command.)

Text selection acts as a toggle in this sense: move over text to select it and move back over it in the reverse direction to deselect it.

# Keyboard Selection

Here are common text selection tasks that you can try out in the WordPad program with the keyboard. They show you how to select and deselect text in common situations.

### Task 1: Select a Character

1. Navigate to the desired character.

   Employ the Arrow keys or whatever Navigation keys suit your mood.

2. Hold the Shift key.

   You are about to create the selection.

3. Tap the Right key.

   The character is selected--passed over and highlighted.

4. Release the Shift key.

   The selection stops here.

5. Invoke the action to be applied to the selected character.

   You can tap the Del key to erase the selected character, tap the Ctrl + C key to copy it to the Vista Clipboard, or type text that immediately replaces it.

### Task 2: Select a Word

1. Navigate to the leftmost letter of the desired word.

   Employ the Ctrl + Arrow keys or whatever Navigation keys that suit the occasion.

2. Hold the Shift key.

   You are about to create the selection.

3. Tap the Ctrl + Right key.

   The word is selected--passed over and highlighted.

4. Release the Shift key.

   The selection stops here.

5. Invoke the action to be applied to the selected word.

   You can tap the Del key to erase the selected word, tap the Ctrl + C key to copy it to the Vista Clipboard, or type text that immediately replaces it.

### Task 3: Select a Line

1. Navigate to a line that has some text in it.

   Employ the Up/Down keys or whatever Navigation keys suit your mood.

2. Navigate to the leftmost character on the line.

   Tap the Home key, for this key moves the keyboard focus to the far left of a line.

3. Hold the Shift key.

   You are about to create the selection.

4. Tap the End key.

The entire line is selected--passed over and highlighted.

5. Release the Shift key.

The selection stops here.

6. Invoke the action to be applied to the selected line.

You can tap the Del key to erase the selected line, tap the Ctrl + C key to copy it to the Vista Clipboard, or type text that immediately replaces it.

## Task 4: Select a Paragraph

1. Navigate to the top line of a paragraph.

Employ the Ctrl + Up/Down keys or whatever Navigation keys are most convenient.

2. Navigate to the leftmost character on the line.

Tap the Home key, for this key moves the keyboard focus to the far left of a line.

3. Hold the Shift key.

You are about to create the selection.

4. Tap the Ctrl + Down key.

The entire paragraph is selected--passed over and highlighted.

5. Release the Shift key.

The selection stops here.

6. Invoke the action to be applied to the selected paragraph.

You can tap the Del key to erase the selected paragraph, tap the Ctrl + C key to copy it to the Vista Clipboard, or type text that immediately replaces it.

## Task 5: Select two Words

1. Navigate to a line that has some text in it.

   Employ the Up/Down keys or whatever Navigation keys you prefer.

2. Navigate to the leftmost character on the line.

   Tap the Home key, for this key moves the keyboard focus to the far left of a line.

3. Hold the Shift key.

   You are about to create the selection.

4. Tap the Ctrl + Right key twice.

   The two words at the far left of the line are selected--passed over and highlighted.

5. Release the Shift key.

   The selection stops here.

6. Invoke the action to be applied to the two selected words.

   You can tap the Del key to erase the two selected words, tap the Ctrl + C key to copy it to the Vista Clipboard, or type text that immediately replaces it.

### Task 6: Select All But two Words

1. Navigate to a line that has some text in it.

   Employ the Up/Down keys or whatever Navigation keys you like.

2. Navigate to the leftmost character on the line.

   Tap the Home key, for this key moves the keyboard focus to the far left of a line.

3. Hold the Shift key.

   You are about to create a selection.

4. Tap the End key.

   The entire line is selected--passed over and highlighted.

5. Tap the Ctrl + Left key twice.

   The two words at the far right of the line are deselected--passed over in reverse direction and returned to normal color.

6. Release the Shift key.

   The selection stops here.

7. Invoke the action to be applied to all the selected words.

   You can tap the Del key to erase all the selected words, tap the Ctrl + C key to copy it to the Vista Clipboard, or type text that immediately replaces it.

# CHAPTER 20
# COMPUTER MOUSE AND POINTER

You interact with your COMPUTER via its keyboard and its mouse. The keyboard lets you type text and commands. The mouse, on the other hand, lets you aim at an item on the computer display and do something with it or have it cause something to happen. This chapter, intended for the beginner, describes the mighty mouse and explains its operation.

The TV remote control is the most familiar pointer device. You take aim at your TV set and fire. The mouse is another pointer device. You aim it at your computer's display and tap its buttons. These two pointer devices are next compared to make your introduction to the computer mouse easier.

## The TV Remote Control

You can walk up to the TV set and press buttons on its front to work it, or you can operate it from a distance via its remote control. The typical remote control is battery operated, is long and flat with a bunch of push buttons on its top surface and is transparent at one end.

Any action you take with the remote control requires two steps: (1) Point-- you aim the remote control at a single specific place on the TV set. (2) Click--you press and then release a button on the remote control that sends an invisible encoded beam of light to the TV set. The TV set interprets and then responds to this invisible signal, the button click. For example, the

power button turns the TV set on and off, the mute button turns its sound on and off, and the arrow buttons let you increase/decrease the channel number or volume level.

# The Computer Mouse

A child points a finger at something and then does something (smiles, cries, jumps up and down) to indicate that this is the desired item. An adult (usually a husband) points a device (TV remote control, fake gun at a carnival) at something and then does something (presses a button, pulls the trigger) to indicate that this is the desired item. A mouse is that piece of equipment attached to the COMPUTER that lets a user point at items on the computer display and then make something happen. (The plural of mouse is mice just like those little creatures cats chase.)

A computer mouse is shaped like a curved bar of soap and is connected to a computer via a cable. There are two long push buttons, the left mouse button and the right mouse button, along its top surface near the cable connection. A user rests the right hand on the mouse's body with the index finger on the left button, the middle finger on the right button and the finger tips near the mouse's tail--cable connection. The thumb and other fingers lie off to the side, and the wrist rests on the flat surface of the table, desk, or whatever.

A tap of either mouse button is called a Click because the mouse clicks when either is tapped. The word Click and the phrase Click the Mouse invariably refer to the left button. (Some mutant mice possess a middle button; just ignore it.)

## Mouse Hot Keys

A sighted user controls just about everything in Vista and in other programs with the computer mouse. A blind user must occasionally rely on mouse hot keys (a keyboard emulation of a mouse) to work efficiently with some programs. You should understand how the computer mouse and mouse hot keys work and how to perform the common mouse tricks. Think of the computer mouse as your rodent friend and not as your nemesis.

Vista provides (listed under Control Panel) a keyboard alternative to the computer mouse that lets a motor-impaired user perform the necessary mouse tasks. A screen reader does the same thing for a blind user.

You sit at a COMPUTER and tap standard keys on its keyboard most of the time. You tap the mouse hot keys and make the mouse do tricks only when you need to point at something on the computer display that you can't

directly access with the keyboard. This is rarely necessary, but occasionally it is a must.

**Access Note:** A screen reader usually has its own mouse Navigation hot keys. They may be the standard Navigation keys, modified standard Navigation keys, or other keys.

# Mouse Focus

Vista and other programs present multiple items at the same time on the computer display. These various items (the primary subject of this tutorial) can respond to mouse activity. However, only a single item at a time can respond to mouse activity. The item that is currently able to respond to mouse activity is said to possess the Mouse Focus--often called the Input Focus or the System Focus.

# Mouse Navigation

There is a small ball that protrudes from the mouse's underside. You push the mouse around on a flat surface to cause the little ball in its belly to roll. The best flat surface is provided by the Mouse Pad, which is a flat soft piece of rubber over which you push the mouse. Its rough surface provides some friction so the mouse ball roles smoothly. It also keeps the mouse from wandering to far a field.

Motion of the mouse ball causes a visual cue on the computer display to move. You can move this visual cue, called the Mouse Pointer, to any place on the computer display.

The mouse pointer moves in the same direction that you push the mouse. Push the mouse left or right to move the pointer left or right; push the mouse forward or backward to move the pointer up or down. Pick up the mouse and place it elsewhere on the flat surface when you run out of room, and then continue to push it in the same direction.

Navigate (move the mouse pointer) to the desired item or spot on the computer display, then you must click a mouse button to make something happen. The common movements of the mouse that let you navigate the computer display and the typical clicks that let you take action are presented in this chapter.

**Access Note:** A screen reader usually has hot keys that let you perform the needed mouse tasks. You tap hot keys to move the mouse pointer and tap other hot keys to click the mouse. You never need to move or click the real

mouse. This lengthy description of the physical mouse and how to move it is given so you are able to converse with sighted peers on common ground.

# Mouse Pointers

The mechanical critter that you push around looks and feels like a curved bar of soap; it maintains its soapy physique no matter how fast or often it scurries about. However, the mouse, when at work, wears different attire (pointer shapes) to indicate its various jobs. Vista is ready to perform a different task when the mouse pointer assumes a new shape. The visual appearance of the mouse pointer is determined by its position on the display and by the task to be performed. Next, the names of some important pointer types, how they look, and what they mean are presented.

Please Wait--this pointer looks like an old-fashioned hourglass, that thing in which sand pours from the top into the bottom to mark time, or a spinning world. It indicates that Vista can't pay attention to you so please wait. Sometimes the wait is a long time or even a very long time. How long you must wait depends on your computer's available muscle power and on the task underway.

Work in Background--this pointer looks like a globe. Vista is busy, but you can still continue to work.

Normal Select--this pointer looks like an upward arrow that points North by Northwest. It indicates that you are where you can select or activate an item.

Precision Select -- this pointer looks like crosshairs. It allows for more careful selection.

Text Insert--this pointer looks like a toothpick, a thin vertical line, sometimes called an I-beam. It indicates that you are where you can type text.

Help Select--this pointer looks like a print question mark. It indicates that you can ask for help for items.

Resize Window--these three pointers are double-headed arrows. They appear when you position the mouse pointer over an edge or corner of a window in order to resize the window.

Link Select--this pointer looks like a pointing hand. It indicates that the text pointed at is a HyperText link. This pointer shape appears in the help program that comes with Vista.

**Access Note:** The mouse pointer changes its shape when Vista is ready to perform a different job. A screen reader can announce the pointer's shape when it changes so a blind user can respond appropriately. For example, Vista displays the Hourglass icon or the Spinning World icon when it becomes busy--a user must wait. Vista displays the Arrow icon when it becomes interactive--a user can now work.

# Mouse Tasks

You can do seven things with the mouse, and there are seven terms that describe what you can do. Here are the important mouse terms, tasks, and some useful details.

Point--push the mouse around until its pointer is over some particular item or at some specific place on the computer display. You must point the mouse before you can do something worthwhile with it.

Hover--point the mouse and hold it still for a few seconds. You hover the mouse over an item to reveal some information about it. Here are two important situations when the mouse hover comes in handy. An icon in a tool bar is a little picture that is supposed to be self-explanatory but is often enigmatic instead. Hover over an icon in a tool bar to pop up a little box beneath the icon that contains a descriptive label for that icon. Move the mouse pointer off the icon, and then the box with its label vanishes. A status indicator in the Notification Area is a little picture (alias icon) that represents a piece of equipment. Hover over an equipment indicator to reveal the equipment's status in a little box--your printer is on page 10; your modem is connected. Move the mouse pointer off the equipment indicator, and then the box with the status information vanishes.

Click--point the mouse and press and quickly release the left mouse button. You click an icon to select it. It becomes highlighted, that is, its color changes. You click a button to activate it.

Double Click--point the mouse, hold it steady; and quickly click it twice. You double click an icon to activate it.

Press--(1) Point the mouse at some graphic item, (2) press and hold the left mouse button. This alters the appearance of the graphic item--it looks depressed or whatever--which is a useful visual cue for a sighted user. A press only identifies a potential operation; a release activates (carries out) the operation. You, as a blind user, can forego this activity.

Drag and Drop--(1) Point the mouse at some graphic item; (2) press and hold the left mouse button; (3) move the mouse pointer and the attached

graphic item elsewhere; (4) finally release the left mouse button. Steps (1) and (2) let you grab the graphic item; step (3) lets you drag it somewhere; step (4) lets you drop it there. You can drag, for example, an unwanted item over to the Recycle Bin (little trash bin) and discard it.

Right Click--point the mouse, press and quickly release the right mouse button. Only recently has the right click found a job in Vista. You right click to pop up a brief menu, called the Context Menu or the Shortcut Menu, for the item under the mouse pointer. (The context menu is discussed in detail in The Three Menus chapter.)

# Mouse Fumbles

A user pushes the mouse, and it scurries around. Its pointer eventually stops. Then click goes the mouse, and something happens--sometimes the unexpected. There are four common mouse mistakes.

A user must click the mouse when it is exactly over the targeted item or spot. Near isn't good enough! Click the mouse nearby and the wrong thing happens.

A user must double click the mouse rapidly. A slow double click is interpreted by Vista and other programs as two separate single clicks.

A user must hold the mouse steady when it is double clicked. A shaky double click is also interpreted by Vista and other programs as two separate single clicks.

A user must continuously hold the left mouse button when a drag and drop is in progress until the mouse pointer reaches its destination. A premature release of the left mouse button drops the dragged item in the wrong place.

**Access Note:** A screen reader may give a blind user the advantage. It may contain hot keys that replicate the basic mouse activities. For example, some hot keys let you precisely position the mouse pointer so you never miss the target. Other hot keys let you precisely double click so you never double click too slowly or unsteadily. Still other hot keys let you lock the mouse buttons so they stay pressed until you complete a drag so you never drop the dragged item too soon.

# Text Selection with the Mouse

Selection of text by a sighted user is quite simple with the mouse, and particular types of text selection with the mouse also let a blind user work quickly and confidently.

A piece of consecutive text is called a Block of Text. It may contain a single character, word, line, or paragraph. However, a block can extend as far as you like. Here is the general procedure to select a block of text of any size with a Shift + Mouse Click.

1. Place the mouse pointer over the character or place where the selection is to start.

   Where the selection starts is called the Anchor Point.

2. Click here.

   The selection is about to be created.

3. Place the mouse pointer over the character or place where the selection is to end.

   Where the selection stops is called the End Point.

4. Shift + Click here.

   The selection is created.

5. Release the Shift key.

   The selection stops here.

6. Invoke the action to be applied to the selected text.

   A tap, for example, of either Del key erases all the selected text.

7. Tap any unmodified Navigation key or click elsewhere to deselect the just selected text.

Text selection acts as a toggle in the sense: pass over some text to select it; pass back over it to deselect it.

Often, you may want to do something with a single unit of text--word, sentence or paragraph--such as delete it, move it, change it, etc. Here are common text selection tasks that you can try with the mouse or mouse hot keys in the WordPad program.

   Task 1: Select a Word -- Double click inside the word.

   Task 2: Select a Sentence -- Ctrl + Click inside the sentence.

Task 3: Select a Line --Click in the left margin near the line.

Task 4: Select a Paragraph-- Double click in the left margin near the line, or triple click inside the paragraph.

Task 5: Select the Document -- Ctrl + click in the left margin.

# Standard Mouse Clicks

Vista and other programs obey five useful mouse rules when in a text context.

A single mouse click routes the keyboard focus onto the mouse focus. That is, the location where you are about to type text is now the current position of the mouse pointer.

A double mouse click selects the word that currently contains the mouse pointer.

A triple mouse click selects the paragraph that currently contains the mouse pointer.

A Ctrl + Click select the sentence that currently contains the mouse pointer.

Position the mouse pointer and then click. Reposition the mouse pointer and then Shift + Click. All the text between the two mouse clicks is selected.

# Mouse Hot Keys

Time for a bit of jargon before the saga continues. The cursor is the generic term for the visible indication of where your interaction with your COMPUTER is about to occur. The keyboard cursor is called the INSERTION POINT (or the Caret) when the keyboard focus is located within text. The mouse cursor is called the Mouse Pointer; it is a graphic image at the location of the mouse focus.

A screen reader has three essential hot keys that relate to the dual cursors. They are:

A hot key that lets you move the mouse focus over to the keyboard focus.

A hot key that lets you move the keyboard focus over to the mouse focus.

These two Route Keys let you put both focuses over the same item or at the same spot on the computer display. Then, you can use either keyboard or mouse actions whichever you prefer. For example, place both the keyboard focus and the mouse focus over the same icon on the Desktop, then you can either tap the Enter key or double click the mouse to activate it.

A hot key that lets you move the mouse focus with the Navigation keys.

A tap of this hot key lets the Navigation keys move the mouse pointer in a known direction and onto a specific target. Consequently, this hot key gives you useful control over the mouse pointer in several important circumstances. For example, tap this hot key, then you can move onto the tool buttons along the tool bar in a program window.

This hot key also provides you with a computer display Browse Mode. That is, tap it, and then you can move all over the computer display with the Navigation keys and examine its content at your leisure.

This hot key is a toggle key. You must tap it to switch between the two meanings of the Navigation keys--move the keyboard focus or move the mouse focus.

**Access Note:** A screen reader can treat these three hot keys in different ways. For example, it may route the mouse cursor onto the keyboard cursor and that's all, or it may route the mouse cursor onto the keyboard cursor and automatically switch to the computer display Browse Mode--sometimes convenient, other times bothersome. (Check the manual for your particular screen reader to determine how it behaves in this situation.)

# CHAPTER 21
# COMPUTER HARDWARE

The personal computer is almost as commonplace as a TV set. These household appliances have two things in common: they are pieces of equipment, and they run "programs". The equipment is called Hardware, and the programs are called Software.

This chapter, intended for the beginner, describes the hardware that usually comes with a computer that runs Vista. Chapter 1 discusses Vista and tells you the easiest way to pick the right version; Chapter 2 tells you the easiest way to turn Vista on and off.

## Your Vista Computer

A small and affordable personal computer usable in the office or at home is now a fact of daily life. The basic hardware is that popularized by IBM and now sold by most stores and mail order places. The essential software, called the Operating System, is that manufactured by Microsoft and called Windows Vista.

You can buy a portable computer called a laptop or a notebook or buy a stationary computer called a desktop or a tower. Both kinds run Vista and have essentially the same parts: keyboard, display screen, system unit (with central processor and memory) , disk drives, and connectors.

Portable computers are nowadays as versatile and powerful as their bigger counterparts, and now sales of portable computers surpass that of desktop computers used at home or at school. Desktop computers are preferred at work when workers need to add specialized equipment to them.

A portable computer has all its parts integrated into a single flat unit. You open its lid to reveal the display, part of the lid, and the keyboard, part of the main unit. Its keyboard usually has fewer keys and a different arrangement of keys from the standard full-sized 104-keyboard described in Chapter 18 and used with a bigger computer. You can plug a standard keyboard into a portable computer if you want the normal keyboard layout. You can even buy a "foldable" keyboard so you can carry it around more easily.

Vista and other programs come on DVD disks so your computer must have a DVD disk drive! The material recorded on the disks is called Software because it is intangible. Software is the stuff that makes the hardware come alive and do something.

A computer chip called the Microprocessor or the Central Processing Unit (CPU) does all the "brain" work in your computer. Celeron and Pentium are two examples of processors manufactured by the Intel Corporation. Processor chips from other manufacturers work just as well. The processor determines how quickly and powerfully the computer can perform tasks.

Temporary memory serves as work space in your computer. It is analogous to work space on a desk. You place documents, pictures, and other files into temporary memory for the same reason you place them on your desk--to examine them or to work with them. Eventually, you either throw them away or place them back into permanent memory--the local disk in your computer or the drawer in your desk. On the other hand, just turn off your computer or clear off the desk, then the files currently in the work space disappear forever.

More precisely, a program can take a document off a disk and place it into temporary memory when you need to examine or work with it. Also, you can type a document directly into temporary memory. If you make changes to a document while it's in temporary memory, you need to save the altered document on a disk, for the work space is cleaned off when your computer system is turned off. There is no way to recover it!

Here is a technical tidbit about temporary memory that you may find informative. Vista and other programs can jump to any place in temporary memory and immediately read the data stored there. They aren't required to search sequentially through all of the temporary memory to find the necessary data. Random Access Memory capability gives rise to the acronym RAM for temporary memory. A music CD has RAM technology-- you can jump to any particular song; a cassette tape lacks RAM--you must play the tape all the way through to find a particular song.

Most documentation and books loosely use the terms Work Space, RAM and Temporary Memory interchangeably. Just remember to save important stuff in the work space onto the hard disk, CD or thumb drive before you shut down Vista and turn off your computer.

**Remark:** Chapter 1 recommends the processor speed and the amount of memory you should buy with your computer.

Equipment such as the Keyboard and the Mouse let you put data and documents into your computer, and are called Input Devices. Equipment such as the Monitor (display) and the Printer let you present data and documents on a screen or page, and are called Output Devices. Other devices, like a sound card and a disk drive, serve as both input and output devices. These devices (input and/or output) are collectively called Peripheral Devices.

# Power Button

You can't get anything accomplished until you turn on your computer. There is a push button that turns your computer on and off. Press it, your computer comes alive. It beeps, whirs and eventually plays the Vista melody. Another press turns your computer off and silence reigns.

The shape and location of the power button varies among computer models and manufacturers. I have a laptop with a round, raised button located in the upper-right corner of the computer just above the keyboard. I have another laptop with a rectangular, flat button located in the middle of the computer, just above the keyboard. You might need assistance finding the power button when you get a new computer.

All of the equipment attached to your computer--a printer, a scanner, a camera--have their own on/off controls. You must turn them on and off separately. This quickly becomes a great annoyance, especially to a blind user, because it is easy to forget to turn on or off a piece of equipment. (You can feel the heat vents on a device to help determine whether it is on or off. If it is warm, the device is on; if it is cool, it is off or hasn't warmed up yet.)

**Remark:** Many newer peripheral devices (like printers that meet the Power Saver standard) lack power controls. They turn themselves on and off as needed, which saves you the trouble.

A gadget, called a Power Strip, is recommended to eliminate this bother. A power strip (available at just about any hardware or computer store) has six or more places where you can plug in electrical cables. A power strip that offers surge protection as well as spike protection is more expensive than a basic strip but is strongly advised because it protects your major investment, your computer system, from lightning strikes and other electrical disturbances.

You plug the power strip's cable into a wall outlet, plug every piece of equipment into the power strip, turn on all your equipment, and leave every piece on. Then, you only need to flip the on/off switch on the power strip to turn on and off your computer system.

A power strip also helps avoid potential embarrassment. I once gave a demo to a sighted user, but forgot to activate the computer monitor (display). Users sometimes call and complain that Vista didn't start properly. They assume this to be the case because the Vista melody didn't play--because the power to the speakers was off.

**Remark:** There is a safe and proper way to turn off (Shut Down) your computer system described in Chapter 2; always follow this procedure to safeguard your computer and your data.

When you turn the power strip on, your computer system eventually comes alive. This may take a minute or more; the time required depends on the speed of the computer and the peripheral devices connected to it. You know that your computer system is almost ready when the Vista melody plays--a little tune played just before Vista makes its grand entrance.

There are several terms used in manuals that mean Turn On Your Computer System. Power On your computer system means Power Up your computer system--flip the power switch located on the power strip. Boot your computer system means start up Vista which automatically happens when you turn on the computer. Warm Boot your computer system means restart Vista while your computer system is still powered up. Cold Boot your

computer system means power off the entire COMPUTER system, wait a few seconds, and then power it up again. (A Cold Boot is a last resort when your computer system malfunctions.)

### *Compact Disk Button*

There is another push button called the CD button. You press it to eject and retract a square tray that holds a round disk, called a Compact Disk, which looks and feels like a music CD. This tray may be located on the left side or on the right side or in front of the computer.

The CD button only works when the computer is on. If you press it, the CD tray slides out or in. Near the CD button, there may be a little thumb wheel that controls the sound level through earphones for compact disks that possess audio content.

A compact disk has a label on its top side and has a raised circular ridge around its hub on its bottom side. You can't make out the label by feel, but it is rough in texture. Usually, a sighted user can't see the raised ridge.

A compact disk is kept, label-side up, in a square plastic case called a Jewel Case--this is an apt name, for some compact disks are as expensive as jewels. The cover of a jewel case is the flat surface with the ridged strip. Hold the jewel case flat with the ridged strip up and away from you. The front edge, opposite the raised strip, is where you open the jewel case. Just pull up on the cover's front edge to open the jewel case.

**Access Note:** There is no recessed place on a compact disk in which to affix a braille label, but the top cover of a jewel case typically provides plenty of room for this purpose. You can put a label there with lots of information and with some designation for the jewel case and its compact disk.

Printed material is usually placed beneath and fastened to the cover by tabs--a brief get-started guide, sometimes unabashed advertisements. You can slide out any printed matter --just pull it forward.

The compact disk rests label side up suspended over the bottom surface of the jewel case which has a hub at its center and which feels just like the compact disk tray. Remove and replace the compact disk in the jewel case a few times for practice before you attempt to place it into the compact disk tray.

Hold a compact disk by its outer and inner edges and its top surface. Lay a compact disk flat on a table or desk, label-side down, when it is out of the jewel case or CD tray.

Clean a compact disk if it gets smudged or scratched. You can buy a cleaning kit at a computer or record store.

# Computer Connectors

You may want to connect five different devices--keyboard, monitor (display), mouse, printer, and power--to your computer. These connections are described in detail so you have some idea how to connect or disconnect your hardware if necessary.

### USB Connector

Luckily, a computer running Vista has a multi-purpose connector. This connector, called the Universal Serial Bus connector (USB), looks and feels like a flat rectangle with a narrow slot. You just plug any device's USB cable into any USB connector on your computer, and you are finished. Vista can automatically determine the type of device you just connected. Only buy a peripheral device--a keyboard, a mouse, a printer, and a scanner--with a USB connection. A USB cable fits into its connecter in a single orientation; thus, you can't plug it in incorrectly.

Plug and connector terminology now follows. A male plug or connector has a number of prongs at its end. A female plug or connector has a number of holes at its end. A plug or a connector is cylindrical in shape when it looks and feels like a mini soda can. A plug or connector is trapezoidal in shape when it has two parallel edges of different lengths.

### Monitor or Display Connector

You may attach a video display of any size to a laptop or desktop computer. A video display or monitor has a cable with a very narrow trapezoidal, male, keyed plug at its end. Position the plug so it fits into its female connector and push it in. Then tighten the two screws on the plug.

### Power Connector

Your computer requires electricity to come alive. This is provided by the power cable that connects to the computer. The plug that goes into the computer is male and the plug that goes into the power source is a standard wall outlet connector. Check this cable for snug connections when the computer seems dead.

### Phone Jack

You can dial up the Internet via a standard phone connection. Plug a standard phone cable into the phone jack on your computer and into a wall jack.

### Sound Card Connectors

A sound card usually has three adjacent cylindrical female jacks. Earphones or speakers are plugged into the Output jack to get sound out of your computer; a microphone is plugged into the Mic jack so you can record voice messages on your computer. You can plug a device like a cassette player into the input jack so you can get previously recorded material into your computer. The order of these three jacks differs among sound cards, so you must check the order of these jacks before you attach devices.

### Network Connector

A network card has one of two different kinds of connectors: phone style and coaxial. The former is shaped like a telephone jack but slightly bigger; the latter is a small cup that fits over a rounded metal cylinder.

# Types of Disks

A computer running Vista has two different kinds of disk drives: a hard disk and a video disk.

### Disk Capacity

A disk contains recorded material just as an audio cassette or a music CD does, but the amount of material that is recorded is measured differently. A disk is rated by the number of Megabytes or Gigabytes that it can store; an audio cassette or a music CD is rated by the number of Minutes that it can play.

You don't really need to think about the storage capacity of a disk. The amount of data and the amount of empty space on a disk is automatically tracked by Vista. Vista lets you know when a file is too big to fit on a disk or when a disk is filled up.

### Hard Disk

There is a disk buried within the computer called the Hard Disk. This is a sealed round magnetic platter. Vista and other frequently used programs are permanently placed onto this disk so they are immediately available when the computer is turned on. Work in progress--like this book--is also

placed onto the hard disk. A lightweight computer may possess just a hard disk; other disks are attached to the computer when they are needed.

Data--programs, documents and so forth--are placed onto the hard disk and taken off the hard disk via the removable media discussed shortly.

The hard disk drive, usually the C: Drive, spins the circular platter inside its sealed case to read and write data. Some Computers have hard disks with more capacity than other Computers just like some executives have bigger file cabinets than other executives. Hard disk capacity is measured in Megabytes for older hard disks and in Gigabytes for newer hard disks. The newer disks are so big that you're unlikely to run out of storage space before it's time to buy a new computer.

You don't really need to think about the megabyte or gigabyte capacity of the hard disk. The used space and the available space on the hard disk are automatically tracked by Vista. Vista lets you know when something can't fit on the hard disk or when the hard disk is filled up.

### *Compact Disk*

A compact disk looks like and feels like a music CD; it's flat and round (about 4.5 inches in diameter). A compact disk works just like a music CD. That is, both are placed into a CD tray, and both act as input devices. A COMPUTER can read data off a compact disk; a Media Player can play the music on a CD.

The compact disk drive, usually the D: Drive, spins a compact disk to read its data--recorded on the bottom surface of the compact disk. The CD drive reads data via laser light. So, it is important to keep the bottom disk surface free of dirt and fingerprints.

Here are the steps to place a compact disk into its disk drive:

1. Wait for your computer to power up.

2. Press the CD button to slide the CD tray out.

3. Hold the compact disk horizontally, label-side up.

4. Place the compact disk into the extended CD tray.

5. Press the CD button to slide the CD tray inward.

The tray moves inward and places the compact disk in the proper position. Later, you press the CD button to remove the compact disk from the disk

drive. (There is no Vista command to slide the CD tray inward, but Vista usually offers the Eject command that slides the CD tray out.)

**Warning:** (1) Always press the CD button to eject or retract the CD tray. Never move the CD tray by hand! (2) The CD tray may jam when the CD isn't properly seated. Press the CD button to eject the tray, and then reseat the CD in the tray.

A compact disk can accommodate a massive amount of data. It can hold an entire college dictionary, or a whole metropolitan telephone directory, or it can hold the latest hot music album.

A compact disk drive can read (play) both kinds of compact disks: those that contain software and those that hold music. Vista is very smart, for it knows the difference between a software CD and a music CD. Place a software CD into the CD drive, then the set up process starts; that is, Vista runs the Set Up program that lets you guide the installation of the software. Place a music CD into the CD drive, then music plays through the audio peripherals (the sound card and speakers); that is, Vista runs the Media Player program that lets you play particular songs or tracks. This auto-play function lets you set up new programs on your computer and also lets you listen to music while you work with your computer. (You can run the Set Up program or the Media Player program manually on those rare occasions when Vista fails to automatically run it.)

### *Digital Video Disk*

A digital video disk (DVD) looks like and feels like a compact disk and works just like a compact disk. That is, both are placed into the CD tray, and both act as input devices.

A DVD disk is formatted so it holds up to 25 times as much data as a compact disk. A single DVD disk can hold an entire full-length movie, often with room to spare. A DVD drive can play program and music CDs as well as the DVDs you rent in video stores. An expensive DVD drive can read and write disks and makes a great backup for important stuff located on the hard drive.

### *Flash Drive*

Rely on a flash drive, also called a thumb drive to back up important files and folders. Read both Chapter 6 and Chapter 13 for all the details.

A flash drive has a USB connector; just plug it in, and Vista will display its contents. Rely on the Copy command to move files and folders between your hard drive and your flash drive.

# Audio System

Vista turns a COMPUTER system into an entertainment center with audio and video. You can listen to music or watch a movie. Here is a brief description of the audio component.

### Computer Beeps

A computer has buried within it an audio oscillator. This device makes beeps that indicate: (1) Your computer system has started to power up. (2) Certain programs are about to boot up or have finished the boot up process. (3) Warn the user of error conditions in the system configuration before Vista is started.

### Audio Hardware

Audio is produced by a sound card or a sound chip inside the computer. This audio hardware (circuitry and speakers) is a standard input and output system found in computers that run Vista. You can record messages or give voice instructions with a microphone, and you can play back music or voices through earphones or speakers. You can play your favorite music albums; you can listen to music from the Internet; or you can have the audio hardware serve as a voice synthesizer.

Audio hardware--circuitry with DSP (Digital Signal Processor) chips--can output multiple sounds concurrently. You can use a software voice synthesizer with this multi-channel circuitry and still have other sounds like music come through. Good audio hardware can play up to 32 sounds concurrently and support up to eight external speakers to give a "surround sound" effect. (The audio hardware for a computer with a DVD drive is multi-channel.)

### Unexpected Silence

You may fail to hear the Vista melody and other sounds after your computer system is powered up. This problem is typically easily solved. Here are a few items to check out.

Make sure that the speakers are connected and powered on and that the volume control(s) are set in the middle range. Usually, this check fixes the "no sound" problem. But, there is another possible problem if you share your computer system with other users. They may turn all sound off by program control. (My secretary, who hates the Vista melody, does this occasionally.) Follow these steps to adjust the sound level:

1. Pop up the Start window; pick Control Panel (while in classic view) on its right pane.

2. Pick the Sound item.

3. Highlight Speakers.

4. Move onto the Properties button with the Tab key and press the Enter key.

   A property sheet appears with 4 tab pages labeled: General, Levels, Enhancements, and Advanced.

5. Move onto the Levels page.

6. Press the Tab key to move onto the Speakers track bar.

7. Use the Arrow keys to increase or decrease the sound level.

8. Activate the OK button.

# CHAPTER 22
# COMPUTER SOFTWARE

The computer is almost as commonplace as a TV set. These household appliances have two things in common: they are pieces of equipment and they run programs. The equipment is called Hardware, and the programs are called Software.

You buy a computer primarily to benefit from its programs. Programs are pieces of software that let you accomplish specific tasks. For example, a word processor lets you type, edit, and format documents like letters or memos. A mail program lets you send and receive Electronic Mail--alias e-mail. A browser lets you surf the Internet.

This chapter, intended for the beginner, describes the software that runs your computer and briefly explains its operation. Other chapters discuss individual programs.

## Computer Window

A computer window is a framed rectangular piece of the computer display. It is analogous to a room window--a framed piece of a wall. You look

through a computer window to watch the activity inside the computer just as a snoop looks into a room window to watch the activity inside the room. The computer window is the main way to organize and present material (text and pictures) to you on a computer display or monitor. You may find multiple windows of different sizes and shapes presented on the computer display just as a room may have multiple windows of different kinds embedded in its walls.

A computer window, no matter what its size or placement, is always a framed rectangular area of the computer display. A computer window, just like a room window, presents a view bounded by a frame. However, a computer window, unlike a room window, is alterable. You can change its size, shape and location on the computer display to have a different or better view.

Windows Vista owes its name to the fact that it runs every program and displays every bit of information in a window.

Microsoft is presently the dominant producer of computer software, and the window is the fundamental concept used in this software. A window holds information of some kind, and it is named accordingly. The activity of a program is displayed in a Program Window; the text of a document appears in a Document Window; and the files within a folder are listed in a Folder Window. These three types of windows are the most important and are called Primary Windows. There are other types of windows, and they are called Secondary Windows. A conversation between Vista and you occurs in a Dialog Window, and a message from Vista to you occurs in a Message Window.

# Operating System

There are tens of thousands of programs on the market developed for the computer. Some are intended for typical users--checkbook programs let customers manage bank account, phone book programs let callers look up phone number, and the like. Others are meant for specialists--stock market analysis programs let brokers track Wall Street activity; earthquake prediction programs let scientists follow seismic activity; car exhaust emission measurement programs let mechanics meet air quality standards; and lots more. Still others are designed primarily to operate the computer hardware and control all other programs that reside on the computer. These programs (really collections of programs) are called Operating Systems; they are the big bosses, the overseers of all that goes on within the computer.

Programs, although intended for diverse users and designed for different purposes, have many things in common. For examples, you must start a program before it can perform its tasks and must stop it at some time. You must save data (like phone numbers and addresses) in files and must retrieve data from files. Now and then, you must ask the program for help.

Vista is the master program, the Operating System for the computer, which ensures that all other programs look similar on the computer display, behave in similar ways, and respond to your interactions in the same way. It also makes sure that other programs can work harmoniously together. That is, different programs (like a word processor and a paint program) can share data and can work at the very same time. In short, Vista operates your computer hardware, standardizes software appearance and behavior, and permits you to work with multiple programs simultaneously.

Vista accomplishes all of this via techniques, which it employs, and which all other programs are expected to comply with. Some techniques include standard visual presentations (like windows, menus, and dialog boxes) that ensure similar appearance by all programs. Other techniques ensure that your interactions are interpreted by Vista and other programs in the same way. (All of which is verbally described and explained in this book.)

### *Vista--Its Genesis*

Microsoft offered distinct Windows products to consumers and businesses for many years. Windows for the home had a simple user interface and looked user-friendly and ran on minimal computer hardware. Windows for business had very stable performance and many security features and required substantial computer resources.

Consumers are now more computer savvy, home computers are now more powerful, and both types of users perform many comparable activities. As a result of these trends, Microsoft has merged its windows products into a single product line. There are five versions of Vista; please read Chapter 1 for all the details. This book deals with Vista Home Premium for the home and small business.

Vista merges the best features of consumer and business versions of Microsoft Windows. Vista looks and feels like the consumer versions and works like the business versions to provide ease-of-use and great stability.

### *Vista--Its Activation*

Microsoft owns Vista even after you buy a copy or buy a computer with a copy of Vista pre-installed. A copy of Vista is only licensed to you. Moreover, a licensed copy is only permitted on a single computer!

Microsoft prevents software piracy with a copy-protection scheme called Vista Activation. Vista, as part of its setup process, scans the computer hardware and ties a list of this hardware to the Vista serial Number.

You can avoid the activation process for 30 days, but thereafter Vista ceases to work properly until the activation process is performed. Vista periodically reminds you to perform the activation process. No personal information is transmitted to Microsoft during the activation process--only a list of the computer's innards. (Chapter 1 gives the steps to activate Vista.)

An attempt to install the same copy of Vista onto another computer is foiled, for Vista informs the user that this copy is already in use on another computer. A multi-license, called a Microsoft License Pak, is available if you wish to place the same copy of Vista on multiple computers.

### Vista--Its Registration

There is a voluntary Registration Process. You transmit to Microsoft personal information--name, address and so forth--so Microsoft can send important notices as well as ads when permitted.

### Vista--Its Communication Methods

Presently, there are four common ways to interact with a computer that runs Vista. A keyboard lets you type text and commands. A mouse lets you point at something to make it do something. A pen lets you write or draw something to make something happen. A microphone together with voice recognition software lets you speak commands to Vista. This book only discusses keyboard interaction with Vista.

In response to user activity, Vista updates the view on the display. This view has a standard layout and shows standard graphic elements like windows, menus, dialog boxes and so forth. This user and view interaction is the basis for the so-called Graphical User Interface or GUI (pronounced like chewy, dewy and Louis).

### Vista--Its Scope and Size

Vista is intended for the masses. Microsoft built Vista to meet virtually every need of every potential user and wants a computer in every home and on every desk to be usable by everybody. Thus, Vista is vastly more extensive than any of its predecessors. Vista is actually a collection of many programs. Most of the new programs were previously available from third-party providers or Microsoft as add-ons. Many useful programs--a file compression utility, a utility to copy music off compact disks, and much

more--are now bundled with Vista. (So, there is no need to buy them separately unless you need advanced or specialized features.)

Vista is so vast no single person or group knows all its ins and outs. A typical setup on a computer includes over 1000 files with lots left behind on the Vista CD. It is fair to say that Vista on the whole, is too complex to be completely understood! In many ways, Vista is, for our generation, the 8th wonder of the world.

Vista evolved over years of intensive efforts by countless Microsoft programmers and support staff. Like parents who watch a child grow and mature, Microsoft only recorded in documentation, instead of on film, the most meaningful moments in its development. Official documentation is short, for Microsoft wants users to explore Vista like vacationers explore the new scenery--poke around in this corner, look over there for a few moments, and then move on. The official print documentation is kept very skimpy in the belief that most users ignore it anyway, but online documentation exists and is sufficient to meet most needs. There are 1000 page books for those of you who can't get enough, but there is no single technical manual that describes all of Vista and its related programs.

You may, as you explore Vista, come across a feature or shortcut unknown to experts or even undocumented by Microsoft. This book includes many such techniques (keystrokes, procedures, and the like) very useful to the keyboard user of Vista that are never contained in books written for most users. You, as a keyboard user, must learn more of the details of Vista than the typical mouse user; so, they are included in this book.

### Vista--I its Programs

Power up your computer and wait for the Vista melody. Vista comes alive after a few moments--like magic, like the genie that pops out of the bottle. However, you must ask Vista, the software genie, to bring other programs alive.

The terms Program, Application and Software are often used interchangeably and so are the terms Activate, Execute, Launch, Load, Run and Start. You are said, for example, to run or start a program, launch or load an application, and so forth. However, all of these phrases mean, more or less, the same thing. Namely:

Vista searches for the program on the hard disk or elsewhere.
Vista makes a copy of the program when it finds it.
Vista places this copy (perhaps as multiple pieces at different times) into temporary memory--your work space--so you can use it.

You can start a program in various ways as described in the Programs and Documents chapter.

Vista comes with a bunch of programs. For example, WordPad is a word processor that lets you type, edit, format, and, of course, print documents like business letters. Calculator lets you tally your bills or figure out mortgage or auto loan payments. Disk Defragmenter is a system tool that lets you speed up and tidy up your hard disk from time to time.

You probably wish to install additional special-purpose programs on the hard disk. For example, a screen reader would let you read what you type and read what is shown on the computer display. A braille translator would let you convert text into Grade 2 braille. You may wish to use the same word processor as friends or colleagues; so, it must be installed.

### *Vista -- Its Philosophy*

You can launch a program, and then work on a document. This is the old philosophy--programs are more important than documents. However, research by Microsoft clearly shows that users mainly care about their documents. Microsoft takes this fact to heart; so, Vista lets you focus on either programs or documents. Now, you can open a document, and then let Vista launch its associated program for you. This is the new philosophy--documents are more intuitive than programs. This book discusses both approaches. Learn both, for they are handy on different occasions.

Microsoft considers users to be part of a worldwide community and emphasizes this point of view throughout Vista. Microsoft requires you to have an Internet connection. Life with Vista without access to the Internet is very difficult.

# CHAPTER 23
# THE THREE MENUS

The programs that come with Vista are reached from the Start Window. This window has two vertical panes. The bottom rectangle in the left pane consists of a single button labeled All Programs, which displays a list of the available programs. Read Chapter 5 entitled Start Window for the details. These programs let you perform many tasks, and they possess dozens, if not hundreds, of commands to invoke, options to select, and values that you can set. It is not possible to remember all of this stuff. Therefore, these programs employ a technique, called a Menu, which requires that you remember very little but still lets you do a lot.

**Remark:** The main programs in Office 2007 and Vista itself replace top-level menus with the Ribbon Bar. Microsoft hasn't yet replaced the top-level menus in the programs that come bundled with Vista with the Ribbon bar. As a consequence, you need to know about the Menu Bar as well as the Ribbon Bar.

There are three types of menus: context menus, control menus and command menus. Context menus are associated with most items in Vista--icons in the Display Area, buttons on the Taskbar and even parts of the Desktop; they list the operations and tasks for these items. Control menus are associated with program and document windows; they list the operations that apply to their windows. Command menus are associated with every program; they group together related commands and options. These 3 types of menus are activated in different ways, but you navigate and operate them by the same means after that.

This chapter, intended for the beginner, introduces the menu concept and related notions by analogy with menus in a restaurant. The common menus are presented, followed by aspects common to all three types.

# Restaurant Menus

What follows next is a comparison of restaurant menus and menus found in programs. Hopefully, this comparison makes the subsequent presentation of menu concepts clearer and briefer.

What are menus? Menus in a restaurant are lists of food choices. Menus in programs are vertical lists of items that are names for commands, names for other menus, and names for lots of other things.

### Menu Types

A restaurant may have several menus for you to select from. You are presented with the Breakfast menu in the morning. You are shown the Lunch menu near noontime. You are given the Dinner menu in the evening.

There are three fundamental menus. A context menu for an item lets you perform actions specifically related to that item. A control menu for a window lets you manipulate that window in various ways. A command menu for a program lets you perform related actions supported by that program.

### Menu Items

Every restaurant menu presents items that are relevant to the meal at hand. For example, the Breakfast menu lists foodstuffs that are typically

associated with the start of the day: bacon and eggs, sausage and pancakes, and so forth. The dessert menu may list cakes, pies, and other goodies but no fried chicken or pizza.

Programs offer menus that present related items. For example, the File menu, possessed by almost every program, lists the things that you can do with a file like save it and print it.

### Menu Groups

A restaurant menu is sometimes divided into sections that visually group similar items. The breakfast menu may list, for example, all the omelets together in a block and list all the beverages together in another block.

A menu found in a program may also visually group items. A horizontal solid line, called a Separator Bar, groups related items within a menu.

For example, there are several separator bars in the File menu for the WordPad program. File commands are separated from Save commands, Save commands are separated from Print commands, and so forth.

**Access Note:** A screen reader typically ignores separator bars within menus because they have no purpose other than to make the groups of related menu items look neater. They are mentioned so you are aware of their presence in some menus.

### Menu Exclusions

A restaurant menu may offer a meal that comes with a beverage, and the beverage choices are listed in a group beside the meal--coffee, decaf, tea, and milk. Of course, you are only allowed to select a single beverage from the group; that is, a single beverage comes with a meal. Make a beverage choice, and then the other possible choices are excluded. Alternatively, you may order your eggs scrambled, sunny-side up or poached; they can be cooked only one way.

A menu found in Vista or in a program may also contain a group of mutually exclusive items. For example, a menu in a program may let you select the size of icons: big or small. If you select one size, the other is precluded.

### Menu Indicators

A restaurant menu item may have an indicator shown beside it. For example, an asterisk after a food item may inform you that it is only available in season, and a little picture (alias icon) of a red pepper may warn you that this food item is hot and spicy.

Programs also employ this indicator technique to inform you about their menu items. For example, a Check Mark before a menu item informs you that this item is active. A little graphic of a triangle after a menu item informs you that it leads to another menu.

### Menu Actions

In a restaurant, you are handed a menu. You browse through it for some tasty item. Then, you choose the desired menu item by its letter or number designation. Finally, you give the menu back.

Similarly, in programs you process a menu in four steps with the keyboard: (1) You activate it so it appears (pops up) on the computer display. (2) You navigate through it to locate the item of interest. (3) Then, you choose the desired menu item. (4) Finally, you exit the menu automatically or via a command.

# Context Menus

A typical item in Vista--an icon on the Desktop, a button on the Taskbar or even a part of the Desktop itself--is linked to a little menu which contains commands specific to that item. This menu, linked to an object, is often called the Pop-up Menu because it is entirely invisible until you activate it; that is, until it pops up. You can pop up (display) a context menu in a few steps:

1. Place the keyboard focus over the item.

   The item is highlighted.

2. Tap the Shift + F10 or Context key.

   This pops up the context menu for the item.

3. Tap the vertical Arrow keys.

   You move through the vertical list of menu items.

4. Tap the Enter key.

   This activates the current menu item.

5. Alternatively, tap the Alt key.

This closes the context menu. You can close a context menu at any time; you don't have to activate any menu item.

As mentioned the context menu for an item is a vertical list that pops up near the item. It has three advantages over other types of menus: it is out of the way (invisible) until needed so it reduces the clutter on the computer display; it is available upon demand with a key tap so you don't have to hunt for it; it contains commands, options, or values directly related to that item so it is a short and simple menu.

Various parts of the Desktop possess their own context menus. They let you quickly perform tasks related to these parts.

### Start Button Menu

1. Move onto the Start Button on the Taskbar

   Press the Win key followed by the Esc key.

2. Display the context menu for the Start button.

   Press the Shift + F10 key.

3. Move onto the Properties item with the Arrow keys and tap the Enter key.

A property sheet appears; it has four tab pages labeled: Taskbar, Start menu, Notification Area, and Toolbars. Options on these four tab pages let you customize the named items.

### Taskbar Menu

1. Move onto a program Button on the Taskbar.

   Press the Win key followed by the Esc key. Press the Tab key twice. Move onto a program button with the Arrow keys.

2. Display the context menu for the program button.

   This menu is identical to the control menu for a program. That menu is discussed later in this chapter.

### Display Area Menu

1. Move onto the Desktop.

Press the Win key followed by the Esc key. Press the Tab key four times.

2. Deselect any Desktop icon if necessary.

   Press Ctrl + SpaceBar.

3. Display the context menu for the Desktop.

   Press the Shift + F10 key.

This menu lets you customize the appearance and behavior of the Desktop.

### *Desktop Icon Menu*

1. Move onto the Desktop.

   Press the Win key followed by the Esc key. Press the Tab key four times.

2. Move onto an icon.

   Press the Arrow keys or type its label.

3. Pop up its context menu.

   Press the Shift + F10 key

This menu usually offers commands related to the selected icon. For example, the context menu for the Recycle Bin icon has the Empty Recycle Bin command.

# Control and Command Menus

Every program has a special menu that lets you manage its program window. It also has a horizontal list of menus that lets you carry out the program's various tasks.

# The Control Menu

Start a program with the required incantation (menu choices or key taps), and then its program window appears. (Please read the Program Windows chapter for a complete tour of a program's window.)

The window has a colored strip the width of the window and just below its top edge. This strip, called the Title Bar, is laid out like this:

Title Icon Title Text Window Buttons

The Control Menu is linked to the title icon. Tap the Alt + SpaceBar key to display this menu.

The WordPad program is next used to illustrate this pop-up menu. Follow these steps to launch the WordPad program so you can view its control menu:

1. Tap either Win key to display the Start window.

   Vista places the text cursor in the Instant Search text box.

2. Type WordPad and wait a moment.

3. Tap the Enter key if the WordPad program has keyboard focus. Tap the Tab key three times if not and then tap the Enter key.

   Vista starts up the WordPad program and displays its program window with an empty work area.

4. Tap the Alt + SpaceBar key.

   This is the quickest way to pop up the Control menu for a program.

5. Press either Alt key to dismiss this menu when finished.

This menu lets you alter the size and placement of the program window. It has six items in a vertical list and is laid out like this:

   R - Restore

   M - Move

   S - Size

   N - Minimize

   X - Maximize

   C - Close (Alt + F4)

The four menu items Restore, Minimize, Maximize, and Close perform the same functions as the similarly named buttons displayed to the right of the title text.

The menu item Close has a shortcut key displayed after it. This means that you can ignore the Close item on the Control menu and just tap the Alt + F4 key to exit the WordPad program.

There are three ways to quit a program and close its window with the keyboard: choose the Close item from the Control menu; choose the Exit item from the program's File menu; or merely tap the Alt + F4 key. Vista offers you plenty of ways to slam a program window shut.

The Move item lets you manually reposition the window on the computer display, and the Size item lets you manually alter the window's shape.

**Access Note:** These two items (Move and Size) let a sighted user make the window look different, but they are virtually useless to a blind user. It is much simpler and useful for a blind user to maximize all windows and then switch between them.

# The Command Menus

Start a program with the required incantation (menu choices or key taps), and then its program window appears. (Please read the Program Windows chapter for a complete tour of a Program's Window.)

The window has two colored strips the width of the window and just below its top edge. The upper strip is the program's title bar; the lower strip is the program's menu bar. The menu bar is a horizontal list of words that are the titles of menus. These menus, called Command menus, list all the items that let you perform the program's tasks. Related items are placed in the same menu.

The menu bar for a typical program (WordPad, NotePad, and Internet Explorer) has six common menus and is laid out like this:

    File Edit View Insert Format Help

Here are brief descriptions of WordPad's six command menus: File lets you manipulate a document (like name, it, save it, print it); Edit lets you alter text in a document (like Copy it, Cut it); View lets you display the program's window or the current document in various ways; Insert lets you place data into a document (like the current Date, the current Time); Format lets you specify the document's layout (like Font and Bullet style); Help lets you access helpful information about the program in general or about a specific task within the program.

A program, no matter what's its primary purpose, must let you perform some tasks common to all programs. You usually find, therefore, the menus File, Edit and View located at the far left of a menu bar and the menu Help located at the far right of a menu bar. A program offers additional menus that relate to its intended purpose. For example, WordPad, a word processor that comes with Vista, lets you insert data into a document via its Insert menu and lets you format a document in various ways via its Format menu. Outlook Express, an e-mail program, lets you send and receive e-mail messages via its Message menu.

**Remark:** A program like the Disk Cleanup program has no menus at all because it does just a single task--clean up your hard disk. A simple program like Disk Cleanup is called a Utility Program.

A tactile analogy follows. Imagine a row of window shades all suspended side-by-side from the same horizontal bar, and all the window shades are rolled up. Also, imagine that all the window shades have names printed on their pull rings. Now, imagine that the window shades have items written on them from top to bottom.

You can't read any of the written items when the shades are rolled up. You must pull a shade down to read what is written on it. You grab the pull ring, with the name of the shade that you wish to read, and yank on it to pull the shade down which reveals what's written on it.

The shades are like the individual command menus; the horizontal shade bar is like the menu bar; the names on the pull rings are like the menu titles along the menu bar. The yank of a pull ring is like the choice of a menu. The extended (pulled down) window shade is like the displayed menu--the menu appears just below its menu title.

**Remark:** Command menus are also called Pull-down Menus and Drop-down Menus because you pull them down and they drop down below their respective titles.

You can pull down (display) a command menu with the Alt key and pick a menu item. Here are the steps:

1. Tap either Alt key.

   Keyboard focus is placed over the leftmost menu in the menu bar.

2. Tap the horizontal Arrow keys.

   They move keyboard focus through the menu titles listed along the menu bar. They also move the keyboard focus off the menu bar. Tap the Left

key when at the far left of the menu bar (over the File menu), then you step off the menu bar and onto the Control menu. Tap the Right key when at the far right of the menu bar (over the Help menu), then you also step off the menu bar and onto the Control menu.

3. Place keyboard focus over the desired menu title, and then tap the Enter key.

   This displays the command menu. Its items are displayed in a vertical list surrounded by a box called a Panel, and this panel appears just below the menu title.

4. Tap the vertical Arrow keys.

   You move through the vertical list of menu items.

5. Tap the Enter key.

   This activates the current menu item.

You can exit a command menu in two ways:

1. Tap the Esc key.

   This exits the command menu and returns the keyboard focus back to the menu bar.

2. Tap the Alt key (either key if your keyboard has 2 of them).

   This exits the command menu, leaps off the menu bar, and returns the keyboard focus back to the program window.

You don't have to activate any command menu before you leave the menu bar. Any displayed menu rolls back up and vanishes.

Single letters in the menu titles are underlined. These letters (usually the initial letters of the menu titles) let you immediately pull down their respective menus.

**Remark:** Sometimes, two menu titles in the menu bar may begin with the same letter. Then, some letter other than the first is made the access letter, the underlined letter, in the less used menu title. You can't just tap the access letter, for the program would treat it as type text.

1. Hold either Alt key.

2. Tap the access letter for the desired command menu.

3. Release the Alt key.

4. Alternatively, tap either Alt key.

5. Tap the access letter for the desired command menu.

Either process activates the command menu with the tapped letter; the menu is displayed in a panel below its menu title.

Use the Alt key method when you are unfamiliar with a menu's titles. However, rely on either access letter method after you familiarize yourself with them, for this is a quicker way to activate the desired menu.

**Access Note:** A screen reader may read the access letter of a menu title when it reads the menu title. It may also possess a hot key that lets you read the access letter by itself. These are handy features when you encounter an unfamiliar or rarely used menu title.

# Menu Items

The three kinds of menus described in this chapter are vertical lists of items. Items are usually represented as text but sometimes as graphics.

You can display a menu, but nothing happens until you activate a menu item. Here are the details.

### *The Arrow Keys*

1. Display the desired menu.

   Keyboard focus is automatically placed over the top menu item.

2. Tap the vertical Arrow keys.

   This moves the keyboard focus through the menu items listed in the menu.

3. Place the keyboard focus over the desired menu item, and tap the Enter key.

   This activates the menu item.

### *The Access Letters*

Single letters in menu items are underlined. These letters, called Access Letters, are usually the initial letters of the menu items. However, sometimes, two menu items in the same menu may begin with the same letter, and then some letter other than the first is made the underlined letter, the access letter, in the less used menu item. The creator of a menu makes sure that different menu items possess different access letters because unique access letters let you immediately activate their respective menu items.

1. Display the desired menu.

   Keyboard focus is automatically placed over the top menu item.

2. Tap the access letter for the desired menu item.

   The menu item with the tapped access letter is activated.

Use the Arrow key method when you are unfamiliar with a menu's items. However, rely on the access letter method after you familiarize yourself with its items, for this is a quicker way to activate the desired menu item.

**Access Note:** A screen reader may read the access letter of a menu item as it reads the menu item. In addition, it may possess a hot key that lets you read the access letter for the current menu item as you move through a menu. These are handy features when you encounter unfamiliar or rarely used menus.

# Menu Indicators

A menu item is usually a word or a phrase, but sometimes it is represented as a graphic. It may alter its appearance or have normal appearance or exhibit an indicator next to it that describes its state, type, or purpose. There are two appearance indicators and five real indicators, and here is what they mean.

### *The Gray Color*

Sometimes, a menu item is in conflict with current circumstances and can't be used. For example, in a program's pop-up Control menu, the Maximize item is unavailable when the program's window is already maximized. In a program's Edit menu, the Copy text and the Cut text items are unavailable when the program lacks selected text to manipulate.

A menu item changes its color to inform you that it is unavailable; that is, it is inactive. It becomes gray in color; that is, appears dimmed.

**Access Note:** A screen reader may inform you of the unavailability of a menu item with the announcement: Item Grayed, Item Dimmed, Item Disabled, or whatever. This means that you can't invoke that item.

### *The Unadorned Item*

A menu item with normal color and without any indicator beside it represents a command. Pick such a menu item, and then its command is immediately activated. For example, if you pick the last item in a program's File menu, the Exit command, then the program immediately stops and its window slams shut.

### *The Dot Before*

A dot before a menu item indicates that the menu item is currently in effect and is selected from a group of several related and mutually exclusive menu items. For example, a menu may let you display big icons or small icons. These two menu items are mutually exclusive because an icon can't appear big and small at the same time. The menu item that you choose exhibits a dot before it so you know which menu item in the group is currently in effect the next time you pop up that menu.

**Remark:** A bunch of mutually exclusive items in a menu acts just like a bunch of mutually exclusive options in a Box. The dot indicates in both situations which item/option is currently active.

### *The Check Mark Before*

A check mark before a menu item indicates that the menu item is currently in effect and is a toggle switch. A toggle is a menu item with two possible states, such as active/inactive or on/off. An example of a common toggle in daily life is a light switch that is either on or off. The power control for a radio is either on or off. A car ignition is either on or off.

A check mark appears only before a menu item that can be active or inactive, enabled or disabled, or on or off. You only need to activate a menu item that is a toggle to switch its state. For example, the check mark indicator before a tool bar item means that the tool bar is on; that is, it is displayed in the program window. Activate the tool bar item, and then the check mark is removed. Its absence means that the tool bar is off; that is, the tool bar is no longer displayed in the program window. Activate the tool bar item again. The tool bar reappears in the program window, and the check mark reappears before the tool bar item.

**Remark:** A check mark in a menu acts just like a check mark in a check box. It indicates that a toggle is active.

### *The Ellipsis After*

An ellipsis (a row of three dots) after a menu item indicates that this item requires additional information before it can go into effect. The menu item, when invoked, typically leads to a dialog box--which is nothing more than a form to be filled out with the needed information. For example, in a program's File menu, the Save item leads to a dialog box because you must give a name to the file to be saved. (The dialog box is discussed at length in the Two Communication Boxes chapter.).

### *The Triangle After*

A triangle symbol after a menu item indicates that the menu item, when invoked, leads to another menu. This lower-level menu is called a Submenu because it pops up after the initial menu.

### *The Shortcut Key After*

You must typically perform multiple actions to make a desired menu choice--display the menu, move to the needed menu item, choose that menu item. This is okay when the menu item is rarely used, is unusual, or is hard to remember, but quickly becomes an annoyance when the menu item is frequently needed. Fortunately, WordPad and other programs often provide keyboard equivalents for frequently used menu items.

A key or key combination after a menu item indicates that the menu item is equivalent to this shortcut key. Just tap this key to invoke the menu item. For example, you must stop a program and close its window when you are finished with it. Its File menu has a menu item (Close, Exit, or Quit) that lets you stop it. This menu item exhibits the Alt + F4 key to its right. This means that you can tap this weird key to stop the program and entirely ignore its File menu. You must save your work from time to time while in a program. Its File menu has a menu item that lets you save your work. The Save item exhibits the Ctrl + S key to its right. his means that you can tap this shortcut key at any time to save your work and entirely ignore the program's File menu and its Save item.

**Access Note:** The keys or key combinations exhibited after menu items are called Shortcut Keys. You should memorize the available shortcut keys and rely on them instead of menu items because you are less likely to make mistakes. The savvy user relies on shortcut keys because they are more efficient.

# Submenus

A menu item with the triangle indicator after it, when activated, pops up another menu, called a Submenu or a Child Menu. The child menu appears to the right of its parent menu. This submenu may lead in turn to another child menu, which appears further to the right. The submenus are said to Cascade--appear from left to right and fall lower on the computer display-- just like a waterfall. In other words, the menu is followed by the submenu, the submenu is followed by the sub-submenu, and so forth.

You work with a submenu the same way you work with any menu except you must tap the Esc key to leave it and move up a menu level. Repeated taps of the Esc key raise you up through the various child menus till you reach the parent menu. Then, a tap of the Alt key exits the parent menu.

**Access Note:** Most screen readers just read the content of the current submenu and ignore any menus to its left so you scan only what you need to read.

The terms Submenu, Child Menu and Cascading Menu mean the same thing. However, the term Submenu emphasizes the menu's lower level, and the term Cascading Menu emphasizes the menu's visual placement.

# CHAPTER 24
# PROGRAM WINDOWS

There are many windows onto the world. No doubt, you rely on the TV set as a primary output device for worldly events. So, the picture that appears on the TV set is used to motivate and explain the ubiquitous program window that appears on the computer display. That is, the familiar is used to explain the less familiar. This chapter, intended for the beginner, motivates and describes all the parts of a typical program window.

## TV and Computer Displays Everywhere

Many of us alive today can't imagine life without a TV set in our homes. This marvel of modern technology graces the living and bedrooms of metropolitan dwellings, both tenements and mansions. It is even found in most public places--at the beach where vacationers frolic and play and in national parks where city-weary inhabitants seek nature and solace. Its antennae rise even above shacks in rural towns and huts in jungles around the world. In short, this box that displays disasters, up-lifting events, and mind-numbing sitcoms is a staple of the intellectual diet of many of us.

The computer, that box with an electronic brain, is not far behind the TV set in its worldwide influence and ever presence. TV commercials from IBM show folks on remote islands, in jungle villages, and on mountaintops with computer laptops busy at work and play. TV commercials and the motto of Microsoft promise "a computer in every home, on every desk, and useable by everybody."

The TV set and computer (spawned in quite different intellectual seas) have evolved and merged into a single hybrid electronic creature. This mutant electronic beast is named High Definition Television, HDTV for short. This TV standard, set by the U.S. Federal Communications Commission in December 1996, goes into effect in February 2009 throughout the United States. It lets broadcasters transmit digital signals over the airwaves. These signals are like those used in all computers. This commonality of signal type lets TV sets and computers communicate in a standard electronic language.

# TV and Computer Displays Compared

TV evolved over time to meet the needs of its viewers, and the computer did the same to accommodate its users. The movie picture quality of TV is migrating to the computer via multimedia technology, and the ease-of-use of the computer is moving to the TV set via the remote control. Both appliances, TV sets and computer displays, will resemble each other in function and form closer and closer as technology rushes forward. It is anticipated that TV sets and computer displays shall become indistinguishable within five years.

### *Its View Area*

The TV set has a rectangular transparent area on which appears a TV program. This physical area on which images appear is called the TV Screen. The TV set has a rectangular frame, or border, that surrounds the TV screen. The sides of the frame are the edges of the TV screen, and the TV picture stops at these edges.

The computer has, attached to it or built into it, a device similar to the TV set, called the computer Monitor or computer Display. It possesses a screen that is also bounded by a frame.

The TV set has a certain size. It is the length in inches of the diagonal measurement of the TV screen. That is, it is the distance on the TV screen from the lower-left corner to the upper-right corner or the distance on the TV screen from the lower-right corner to the upper-left corner. (These two distances are the same because the TV screen is a rectangle.) The size of

the computer screen is measured in just the same way. The longer the diagonal, the bigger is the image.

### *Its View Element*

The picture on the TV screen looks solid and continuous when viewed from afar. However, up close, it looks grainy. The picture is, in fact, made up of many little dots. These Picture Elements, called Pixels for short, are tiny spots on the TV screen that change in brightness and in color as the TV program progresses. The TV viewer has no control over the number of picture elements and colors that appear on the TV screen, for they are determined by the TV manufacturer and TV program broadcaster.

The picture on the computer screen is also made up of little dots that change in brightness and in color as the computer program progresses. The dots (pixels) are uniformly arranged in rows across the computer screen. A typical row may contain 640 distinct dots, and the typical computer screen may contain 480 rows of these dots. This pair of numbers, dots per row and rows per screen, is called the Video Resolution of the computer display. The bigger the numbers, the sharper is the image on the computer screen.

Here is a tactile example of touch resolution and image crispness. Take four identical boxes and fill them with pebbles, sand, salt and flour. The box of pebbles contains the fewest number of tactile elements (gravel), and it has the roughest feel. The box of flour contains the most tactile elements (granules), and it has the smoothest feel. In short, the smaller the tactile element and the greater the number of tactile elements, the smoother is the tactile image.

The resolution of the image is determined by the computer's video hardware and software; it is completely independent of the monitor's physical size. The image resolution is the same whether a 14 or 19-inch monitor is part of the computer system. This is why image quality is expressed in terms of screen resolution instead of screen size.

# TV and Computer Programs Compared

### *Its Single View Format*

You watch a single TV program at a time, and the program's image fills the entire TV screen. However, you can switch to a different program in order to enjoy some other show.

Usually, you run a single computer program at a time, and the program's image fills the entire computer screen. However, you can switch to a different program in order to perform some other task.

### *Its Multiple View Format*

You can watch multiple TV programs at a time--just plug in multiple TV sets and select different channels. You are constrained to control a single TV set at a time but can look from TV to TV whenever and as often as necessary. The TV sets may have different-sized screens, and you can place the TV sets in different locations and at various distances. Sometimes, a TV news anchor sets up just this situation in order to check out all the competition as a hot news story breaks.

Alas, you can't plug in multiple displays into most computers. So, what to do? You can rely on a program that visually divides the single display into smaller rectangular areas and treats them all as mini-computer screens. The program that does this dirty work is Vista, and the mini-screens are called Program Windows. You run a single computer program at a time in a particular window but can run a different program in every window. You are constrained to control a single window and its program at a time but can jump from window to window whenever and as often as necessary.

**Remark:** Newer desktop computer systems with Vista installed support multiple computer displays. You can watch a TV show and simultaneously work.

Here is a tactile example. Take a sheet of paper the size of the computer display and fold it lengthwise and then in the opposite direction. Unfold the sheet and place it against the computer display. The creases in the sheet of paper divide the display into four rectangles. The edges of the sheet and the creases in the sheet form frames for the four windows--mini screens. The window frames determine the borders in which tactile images can appear. Braille text for a comic strip may occur in the upper-left window, a tactile diagram from a math book may occupy the lower-left window, text of a braille letter may fill the upper-right window, and braille text of a novel may occur in the lower-right window. The contents of these windows can change independently.

# Program Window Layouts

A program window, also called a Primary Window, is where you view the activity of a program and where you interact with the program. A program window possesses various standard parts. These parts have assigned tasks and are located in specific places within the window.

What follows is a guided tour of a typical program window. (Other chapters showcase different kinds of windows--help, folder, explorer.)

### *Its Frame*

Every program window possesses a frame that determines the window's overall shape and size. The frame that borders a program window has four straight edges just like the frame that borders a real window or a wall picture. Its edges are colored lines or thin colored strips that border the window area--the region inside the frame. The color of the frame is usually different than that of the background and the window area, so the frame visually stands out and the window area is clearly delimited by the frame.

All program activity takes place within the frame and is viewed within the frame. Nothing happens or is seen outside the frame!

**Access Note:** The edges of a window frame are of little concern to a blind user, but a user with low vision can change their thickness and color to meet personal visual needs.

The frame for a program window has a Normal Size predetermined by the program, but you can alter its size and shape. You can expand the frame so the window area fills up the Display Area--the window is said to be maximized. You can shrink the frame so the window vanishes--the window is said to be minimized. You can even move an edge or corner so the window changes its shape or size just a little. Of course, you can make the window resume its normal shape and size--the window is said to be restored.

You can manage a program window's size and placement with its Control menu. The various sizes for a program window are explained and illustrated in the Desktop Windows chapter.

### *Its Title Bar*

You change the TV channel, and then a different TV program appears. However, which show is it? Some of the newer TV sets have an Info Button on the remote control. If you press this button, the title of the program appears on the TV screen.

Vista goes a step further. It always displays a colored horizontal strip called the Title Bar. It is placed at the very top of the program window and extends across the width of the program window. The name of the program is displayed in this title bar, and other information is displayed here as well.

In addition, the title bar lets you move the program window with a mouse and activate commands that apply to the program window. For example,

you can right click the title bar to display the Control menu associated with the program window. A tap of the Alt + SpaceBar key does the same thing. (Pop-up menus are discussed in The Three Menus chapter.)

### *The Title ICON*

A sighted person likes to connect a face with a name when introduced to someone new. Vista acquiesces to this need. It displays a mug shot of the program to the far left of the title text in its title bar. That is, Vista shows a little picture, called an Icon, which represents (hopefully looks like) the program. For example, the program from Microsoft called Microsoft Word is a word processor that lets you crunch words all day and night. So, a stylized letter W embodies the title icon.

This title icon is linked to a pop-up menu called the Control Menu. This menu (presented in The Three Menus Chapter) has six items that let you alter the program window's size and position. This menu pops up just beneath the title icon.

You can activate the title icon with the keyboard to close the program's window and exit the program. Tap the Alt + SpaceBar key to pop up the Control menu, and then pick the Close item. (Alternatively, just double click the title icon.)

**Access Note:** A program's title icon is a smaller version of the icon that is placed beside the program's name when its name appears in various places in Vista--in the Start window, on the Desktop, etc. Some title icons are so small that a sighted user can't really see them. Others are so weird in appearance they are meaningless to a sighted user. Nevertheless, they are here to stay. A screen reader just offers the word "Graphic" when an icon is unknown to it, but you can assign a verbal label to it for subsequent reference.

### *The Title Text*

The title text identifies the type of stuff displayed within the program window and names the program. In addition, the title icon matches the type of stuff displayed in the program window. Here are two program window titles.

The title text for the WordPad program is:

Document - WordPad

where "Document" is a placeholder for the yet unnamed document and where WordPad is the name of the program. The placement of the

document name before the program name is meant to suggest that the document is the important thing rather than the word processor program. The title icon just left of the title text is the icon assigned to the WordPad program. (This icon looks like a stenographer's notebook--a pad of paper with a spiral binder across the top. It is opened up and has a pen laid on it.)

The title text for the Paint program is:

untitled - Paint

where "untitled" is a placeholder for the yet unnamed image and where Paint is the program. The placement of the picture name before the program name is meant to suggest that the picture is the important thing rather than the draw program. The title icon just left of the title text is the icon assigned to the Paint program. (This icon looks like a round holder with colored brushes in it.)

**Remark:** This convention, file name placed before program name, emphasizes the document-centric philosophy of Vista. However, older programs may fail to abide by this custom--Word 7.0 from Microsoft is a good example of this.

The title text for a program that is a tool (has no data file) consists of only the name of the program. Here is a tool with its title text:

Calculator

where Calculator is the name of the program. (The icon for the Calculator utility looks like a real calculator.)

A tool program may function as a utility and may require an additional specification to indicate the current context. The specification text is placed after the program name. Here is a tool utility with its title text:

Disk Cleanup - (C :)

where Disk Cleanup is the name of the program and where (C) is the specified context--the current disk to be cleaned up. The placement of the utility name before the specification is meant to suggest that the utility is the important thing rather than the current specification.

**Remark:** The three programs WordPad, Paint and Calculator are located in the Accessories menu in the All Programs list in the Start window.

### *The Three Title Buttons*

A viewer adjusts a TV set by its controls. The off button makes the current TV program disappear--closes it. Some newer TV sets have controls that let a viewer resize the TV image; that is, make it bigger or smaller. These controls are typically available on TV sets that split the TV screen into two windows so a viewer can watch two TV programs at the same time.

A button in Vista is a little framed rectangle with a symbol drawn within it or with a word written within it and often with both. Usually, you can press a button with the keyboard. Move the keyboard focus onto the button, and then tap the Enter key.

With a mouse, you can click three pictorial buttons that are located in a row to the far right of the title text in the title bar.

If you click the left button, the Minimize button, then the program becomes inactive and its window is minimized--the program window is no longer displayed. The program's button, located in the Switch Area of the Taskbar, is dimmed. This is to remind you that the program is still available even though it is currently inactive and its window is absent.

The middle button is either the Maximize button or the Restore button. Click either one, and then the other appears in its place.

If you click the middle button, the Maximize button, then the program window expands to full size and fills up the Display Area. Now, the most material can fit into this window. (A double click of the title text does the same thing.)

If you click the middle button, the Restore button, then the program window returns to its normal size--a size set by the program or manually set by you, between full size and shrunk down to nothing. Now, other material can also fit in the Display Area.

Click the right button, which is the Close button, then the program stops and its window is closed--the program window is no longer displayed.

**Access Note:** The three buttons just right of the title text are little framed squares with a symbol within them. The left button, the Minimize button, contains a short horizontal line (a crushed window) placed on a shaded background. The middle button is either the Maximize button or the Restore button. The Maximize button contains a single tiny square (a full window) placed on a shaded background. The Restore button contains two cascading tiny squares (little overlapping windows) placed on a shaded background. The right button, the Close button, contains two short diagonal lines that cross each other in opposite directions (like the print letter X) placed on a shaded background.

In summary, the strip that extends the width of the window just beneath its top edge, called the Title Bar, is laid out like this:

Icon Text Buttons

You can click the various parts of the title bar with the mouse to make something happen, or you can ignore the mouse and the title bar entirely. You can instead rely on the pop-up Control menu because it lets you accomplish the very same tasks with the keyboard.

**Access Note:** A screen reader has a hot key that announces the title text of the active window. Frequently use this hot key to verify which program is currently active.

### Its Menu Bar

A program is designed to perform a specific function. It may let you write a letter, calculate a car or mortgage payment, send electronic mail to a friend, and who knows what else. The intended function often has several primary tasks associated with it. For example, electronic mail requires that you Send mail, Receive mail, Read mail, Forward mail, and much more.

A colored horizontal strip, called the Menu Bar, is located just beneath the title bar of a program window and extends across the width of the program window. The major tasks (alias commands) associated with a program are listed as words from left to right along this horizontal strip. Typically, all the program's commands are available from its menu bar. (The menu bar and its menus are discussed in detail in The Three Menus chapter.)

**Access Note:** A screen reader may lack a hot key to announce the menu bar of the active window. However, you can read it via its Read Line hot key. (1) Tap either Alt key to jump onto the menu bar. (2) Tap the Read Line hot key to announce the menu bar. (3) Tap either Alt key to jump off the menu bar.

### Its Tool Bar

A program usually offers graphic tools that let you perform often-required actions more quickly than menus or other keyboard methods. For example, a word processor may let you print the current document with the Printer tool, cut out a portion of the current document with the Scissors tool, and so forth. A program displays its tools as buttons (little pictures without text labels) along a colored horizontal strip called the Tool Bar. The tool bar, when present, is located just beneath the menu bar in the program window. Usually, the tool bar contains the most frequently used menu commands.

A tool button is a speedy convenience for the mouse user. A user only needs to click a tool button to invoke its command. You can rely, if you prefer, on the keyboard and an equivalent menu item to perform the same function. However, it is recommended that you take advantage of tool buttons and invoke them via mouse hot keys. This becomes effortless after a little practice and is actually much faster than with the keyboard and menu items.

**Access Note:** (1) A screen reader typically lacks a hot key to announce the tool bar of the active window. There is no direct way to jump onto the tool bar. You must prowl the window via the mouse hot keys to read the tool buttons. (2) A screen reader may examine a tool bar to gather necessary data. The tool bar must remain visible in the program window for this to work.

### *Its Scroll Bars*

A program displays its images (text and graphics) just within its window. Sometimes, all the displayed material fits neatly within the window; that is, nothing squeezes past the window's frame. In this case, you can read all the material. However, most often, all the material can't fit within the window's frame. You need to Screen Roll (scroll) the window to bring material currently outside the window into the window in order to read it.

Here is a concrete tactile example. Take two identical sheets of paper and fill one of them with text from top to bottom and from left to right and cut a small rectangle out of the other sheet. Place the sheet with the cutout (alias window) right on top of the sheet with the text. Only the text within the cutout is readable. Move the cutout up/down to reveal more text in the vertical direction; move the cutout left/right to reveal more text in the horizontal direction.

A typical Vista program, when it has material beyond its window frame, places a visual indicator, called a Scroll Bar, within the window frame. A vertical scroll bar is placed near the right side of the window frame when material lies outside the window in the up/down direction, and a horizontal scroll bar is placed near the bottom side of the window frame when material lies outside the window in the left/right direction. Its presence tells you that material is past the window frame.

**Access Note:** Scroll bars are conveniences for a mouse user. The mouse user points at a spot on a scroll bar and then clicks or drags to move the window in a specific direction and by a prescribed amount. You can rely on Navigation keys instead to move the window to a desired position. (There are programs like Internet browsers that lack cursors so a screen reader may employ the scroll bar as a means of auto-navigation.)

A scroll bar is a visual indicator that shows the position of a program window relative to its possible content. It is a strip with four distinct parts: two scroll arrows, a scroll box, and a scroll shaft. Here are the anatomical details.

A single scroll arrow is located at each end of a scroll bar, and they point in opposite directions away from the center of the scroll bar. The scroll arrows point in the direction that the window moves over the data. You click the mouse over a scroll arrow to move the window a little bit in that direction, and you click and hold the mouse over a scroll arrow to continuously move the window in that direction.

The scroll box, sometimes called the Elevator or Slider, visually indicates the window's relative position within a document or other data. You can drag the scroll box in a particular direction to move the window through a document in that direction. The window reaches the end of a document when the scroll box reaches a scroll arrow. For example, the vertical scroll box is near the top of the scroll bar when the window is near the top of the document, and is near the bottom of the scroll bar when the window is near the bottom of the document.

The length of the scroll box is proportional to the part of the document visible within its window. For example, the scroll box fills the entire scroll shaft when the entire document fits within the window. The scroll box fills half of the scroll shaft when half of the document fits within the window.

The scroll box provides two visual cues: its relative position along the scroll shaft indicates the relative position of the text cursor within the document. Its relative size along the scroll shaft indicates the relative size of the document within its window.

The scroll shaft provides a visual context for the scroll box and lets the mouse user scroll in larger units. Click the scroll shaft on either side of the scroll box to move the window about a window's worth in the direction of the scroll arrow at the end of the scroll shaft.

You can scroll a window with the keyboard instead of the mouse. The four Arrow keys move the window a little bit in the direction of the arrows--a character or line at a time. The Ctrl + Arrow keys move the window a lot more in the direction of the arrows--a word or paragraph at a time.

### Its Other Bars

A bar is a strip along which items are placed. In a lounge, a cocktail bar is a counter top along which stools are placed. In a restaurant, a salad bar is a counter top along which vegetables and other ingredients are placed. In a

program window, a bar is a colored horizontal strip along which items are displayed.

The typical program window has a title bar at the top edge, a menu bar below that, and often a tool bar below both of them.

Some programs have need for other bars. The WordPad program, a word processor, has three additional bars. The format bar, located below the tool bar, lists commonly used document format actions like Save document and Print document. The ruler, located below the format bar, marks the position across the page. The status bar, located just above the window's bottom edge, offers help.

A status bar, when present in a program window, is located at the very bottom of the window. It tracks the current activity, the status, of the active program. A status bar is typically an informational area. You can't do anything to it; you can only read it.

A program's active menu bar and its status bar are usually linked together. A brief description of the menu currently with the focus appears in the status bar. The status bar is updated as you move the focus from menu title to menu title.

**Access Note:** The information on the status bar isn't automatically announced by the typical screen reader. However, a screen reader typically has a hot key, the Read Bottom Line key, that lets you check it out whenever you feel the need.

You may find some bars to be essential and others extraneous. All the optional bars are listed in the View menu for the program. Those that are marked as checked appear in the program window; those marked as unchecked are suppressed. You can check the bars that you want and uncheck those that you can live without. It is recommended that you make the effort to uncheck unwanted bars, for they take up valuable window real estate. Their suppression allows more room for your documents and reduces window clutter.

### *Its Work Area*

A program window is divided horizontally into three distinct regions. The top part contains program bars--title bar, menu bar, perhaps tool bar. The middle part is a work area--sometimes empty and sometimes filled with material. Here is where the real work takes place. The bottom part often contains additional program bars--a status bar, document ruler, etc.

The work area of a program window can occur in different forms.

### *The Empty Work Area*

Typically, a blank work area is found in a word processor like WordPad. A clear work area is analogous to a sheet of paper. You begin to type and text appears there. Here are the steps to start the WordPad program:

  1. Tap either Win key to display the Start window.

     Vista places the text cursor in the Instant Search text box.

  2. Type WordPad and wait a moment.

  3. Tap the Enter key if the WordPad program has keyboard focus in the Results list. Tap the Tab key three times if not and then tap the Enter key.

Vista starts up the WordPad program and displays its program window with an empty work area. Tap the Alt + F4 key to exit this program and close its program window when you are finished.

### *The Dialog Box Work Area*

Disk Defragmenter is presented as a typical example of a program with a simple dialog box in its work area. Here are the steps to start the Disk Defragmenter program:

  1. Tap either Win key to display the Start window.

     Vista places the text cursor in the Instant Search text box.

  2. Type Disk Defrag and wait a moment.

  3. Tap the Enter key if the Defragmenter program has keyboard focus in the Results list. Tap the Tab key three times if not and then tap the Enter key.

Vista starts up the Disk Defragmenter program and displays its program window with a dialog box. Tap the Alt + F4 key to exit this program and close its program window when you are finished.

**Access Note:** A screen reader may place an "authorization key" (copy protection gadget) on the hard disk. Remove the authorization key from the hard disk before you run the Disk Defragmenter program and place the authorization key back on the hard disk after its defragmentation is completed. (The defragmentation process may destroy the authorization key and disable your screen reader.)

### *The Document Work Area*

A viewer may watch a TV program and all of a sudden see a part of the screen become a box in which a mini document--message or other material-- is displayed. This so-called Document Window (alias Child Window) is used by the TV broadcaster to present weather bulletins or fast-breaking news. The document window covers up the material in the program window that occupies the same screen area. Some TV programs may simultaneously display multiple document windows. For example, a news program may have an anchor person read news in the program window and have two document windows in which stock market activity is continuously updated and in which weather or news bulletins are flashed.

**Remark:** A TV program window with multiple document windows often looks complicated. The document windows may vary in size and location on the screen. Many TV viewers consider a TV program with multiple document windows difficult to watch.

A program may also display multiple document windows. Microsoft Word, a widely used word processor, can divide its program window into multiple document windows and simultaneously display different documents in these mini windows. You can, for example, edit a report in a document window and look at a previous draft in another document window. This multiple document interface (MDI) approach is supported by most commercial word processors. However, the WordPad program bundled with Vista lacks this useful ability.

Check a program's menu bar. The MDI facility is supported by the program when the Window menu is present to the left of the Help menu and unsupported when it is absent. You can use this Window menu to jump to a particular document window.

Recall that the Control menu on the title bar lets you alter the program window. Often, there is a Control menu on the menu bar that lets you alter the document window as well. These two control menus work the same way and have the same items. Press the Alt + SpaceBar key to display the control menu for the program window; press the Alt + Minus key to display the control menu for the current document window.

# Program Window Sizes

Now, the most convenient procedures to resize a program window are summarized for your convenience.

### *Window Minimize Procedure*

Minimize a window means (1) the program is inactive, (2) its window is removed from the Display area, and (3) its button in the Switch Area of the Taskbar is dim. Pick the Minimize item on the Control menu.

### Window Maximize Procedure

Maximize a window means (1) the program is active, (2) its window fills the entire Display Area, and (3) its button in the Switch Area of the Taskbar is bright. Pick the Maximize item on the Control menu.

### Window Restore Procedures

Restore a window means (1) the program is active, (2) its window has the intermediate size, and (3) its button in the Switch Area of the Taskbar is bright. Pick the Restore item on the Control menu.

### Window Close Procedures

Close a window means (1) the program is dismissed, (2) its window is no longer displayed, and (3) its button is removed from the Switch Area of the Taskbar. There are three ways to exit a program and close its program window: pick the Close item in the Control menu, pick the Exit item in the File menu, or just tap the Alt + F4 key.

# Program Window Operations

You employ a program window to view and interact with Vista and other programs. There are four common window operations, and they are the topic of this section.

### Activate a Program

At any instant, only a single program can respond to keyboard activity. This program is called the Active Program, and its window is called the Active Window--they are said to possess the Input Focus or the System Focus. A program and its window become active when you launch the program.

Launch a program, and then five distinct things happen: (1) it is placed into temporary memory, (2) its program window is placed on the Desktop, (3) its program window moves to the front and its title bar color is different, (4) its button is placed in the Switch Area of the Taskbar and looks depressed, and (5) it possesses the input focus.

Here are a few details of particular interest to a sighted user. Vista makes the title bar of the active program window appear different. It gives this

title bar its own color--namely blue; its title bar is said to be Highlighted. All the title bars of other program windows have a different but the same color-- namely gray.

**Access Note:** Here is a tactile analogy for Highlight. Different colors correspond to different textures. The title bar of the active program window is smooth, while the other title bars are rough and all feel the same.

A sighted user can tell which program window is active by: (1) the color of its title bar compared to all the other title bars, (2) the active window appears in front of all the windows that may overlap it, and (3) its button in the Switch Area of the Taskbar looks depressed. That is, a sighted user just looks for the window that looks different. A blind user must, on the other hand, tap a screen reader hot key that announces the active program's title text.

### Inactivate a Program

First, launch the WordPad program, and then the Calculator program. Rely on the Instant Search box in the Start window to launch them. Press the Alt + tab key to switch between them.

You can inactivate the currently active program with Alt + Tab when you want to use another program for the moment, but wish to use the first program again. For example, while you are writing a letter in the WordPad program, you may need to perform a calculation. Alt + Tab allows you to switch from the WordPad program (make it inactive) to the Calculator program (make it active) with this one key combination. You can do math for a while and then go back to work on your letter. That is, make Calculator inactive and make WordPad active again with Alt + Tab.

### Reactivate a Program

Reactivate a program means to switch back to that program and its window. Repeatedly tap the Alt + Tab key till you reach the program.

### Quit a Program

Here are a few comments about what happens when you launch or quit a program, and a summary about the ways to quit a program.

When you launch a program, three distinct things happen: (1) It is placed into temporary memory, and you Enter the Program, (2) its program window is placed on the Desktop, and you Open the Window, and (3) its button is placed in the Switch Area of the Taskbar, and appears depressed or pushed in.

When you quit a program, the reverse of the three distinct items described above occurs: 1) it is removed from temporary memory, and you Exit the Program, (2) its program window is removed from the Desktop, and you Close the Window, and (3) its button is removed from the Switch Area of the Taskbar, and the program is no longer usable.

You quit an active or inactive program only when you are completely finished with it. There are several ways to quit a program and close its window: pick the Close item in the Control menu, pick the Exit item in the File menu, or just tap the Alt + F4 key.

The command that emphasizes the program is placed on the File menu. The Exit command occurs at the very bottom of the File menu, and that is the way you leave a program and concurrently shut its window. The command that emphasizes the window is placed on the pop-up Control menu. The Close command occurs at the very bottom of the pop-up Control menu, and that is the way you shut a window and concurrently leave its program.

Quit and Minimize a program window are very different actions. You quit a program when you are entirely finished with it. You minimize its window when you want to temporarily clear off a piece of Desktop real estate but wish to keep the program open for later use.

# CHAPTER 25
# DESKTOP WINDOWS

When you start a program, its activity is displayed in a framed rectangular piece of the Display Area called a Program Window. A program automatically sets the size and placement of its window in the Display Area. Its window may cover part or all of the Display Area, but the entire Taskbar remains visible beneath the Display Area.

Its window is said to be Open--the user can look through it and see the activity of the program. Its window is said to be closed when it is no longer displayed. Its window automatically closes when the program stops. You can close its window but let the program still run when you need to clear off the Display Area, and you can reopen it when you need to watch the activity of the program.

Launch multiple programs, and then their windows open and cover various parts of the Display Area. They may overlap, and they are usually of different sizes. The view on the Desktop often becomes much cluttered and even confused when multiple program windows are open. Fortunately, you

can rearrange, resize and even remove program windows to simplify the view of the Desktop.

Program windows are more flexible than room windows. You can rearrange them and even stack them. They behave, in many ways, more like sheets of paper instead of sheets of glass. You can put them in a pile, shuffle them, and overlap them. Like pages in a book, only the material on the first sheet (the top sheet, the front sheet) is readable. This analogy between computer windows and sheets of paper is used throughout this chapter.

This chapter, intended for the beginner, describes the various arrangements for multiple program windows on the Desktop and explains how to tidy them up and even how to clear them off the Display Area.

# Window Arrangements

The possible arrangements for multiple program windows on the Desktop are presented in this chapter via tactile examples. Please actually try these examples with real pieces of paper. They illustrate important concepts related to program windows displayed on the Desktop and explain important terms that apply to displayed windows.

**Access Note:** A screen reader tracks the active window for you--the important window, the window that possesses the keyboard focus. You don't really need to pay much attention to the overall view in the Display Area. This view is discussed so you can communicate effectively with sighted peers. A sighted friend might ask you, for example, to clear off all the windows in the Display Area so the Desktop is entirely visible. You just tap the Win + M key in response; that is, you minimize all the program windows in the Display area.

### *Piled Up Windows*

Take several sheets of paper of different sizes and of different rectangular shapes, filled with text, and put them in a pile. Place this pile of paper upright in front of the computer display. This upright stack of paper is analogous to a bunch of displayed windows that overlap--they cover each other in bits and pieces.

Note the single sheet of paper in the front of the stack. It is the active sheet of paper--you can read all of the material on it! This sheet may entirely cover some sheets, and yet other sheets may stick out beyond the edges of it so you can still read bits and pieces on them.

Shuffle (switch) the sheets so a different sheet moves to the front of the stack, and it now becomes the active sheet. At this point, you can read all of the material on it! However, you can no longer read some of the material on the previously active sheet of paper, for a part of it or all of it is now covered by the newly activated sheet.

You can, by analogy, pile up program windows on the Desktop. If you launch multiple programs, then their program windows pile up on the Desktop just as sheets of paper pile up on a real desk. Piled up sheets of paper are difficult to read and so are piled up windows. Occasionally, the view in the Display Area may become hopelessly complicated to a sighted user--with multiple windows of different sizes that overlap in various places. Fortunately, Vista offers ways to unpile windows and even ways to remove them off the Desktop.

By analogy, you can also shuffle (switch) program windows on the Desktop. You switch to a particular window (place it on top of the pile) when you press its button in the Switch Area.

### Cascaded Windows

Take a bunch of identical cards and write a title on the top line of every card. Place the cards in a single stack with the cards vertically offset so the title of every card is readable. The entire front card is readable--it's the active card. Only the titles of the other cards, those behind the front card, are readable.

A sighted user loves the cascaded layout for multiple program windows. The entire active window is in view and is large--easy to read, and all the titles of the windows behind it are still readable. A sighted user can just count the number of titles to find out the number of windows in the Display Area. You can place any program window in front; just press its button in the Switch Area.

### Tiled Windows

You can have Vista abandon the stack arrangement for program windows and use a Tiled arrangement instead--the windows are laid out like tiles on a wall or like bricks on a sidewalk. The windows then fill the Display Area without overlaps or gaps. All the windows are the same size and shape and are arranged in rows or columns--much easier to view. In addition, this arrangement lets a sighted user view the content of every window at the same time.

Here are a few examples of tiled items. Multiple panes in a room window have a tiled arrangement--perhaps, 3-panes wide, and 2-panes high. The

squares on a checkerboard or chessboard also have a tiled layout--they are laid out in uniform rows and columns. Take nine index cards and write something on all of them, then arrange all these cards in a rectangular layout. You now have a tiled view with nine windows in which you can read the material on every card.

A tiled layout for multiple program windows lets a sighted user view the content in every window at the same time--a great benefit of the tiled layout. However, this arrangement for multiple windows reduces the amount of material placed in the individual windows as the number of windows increases--a great drawback of the tiled layout.

### Minimized Windows

Take all the sheets of paper off a real desk and place them elsewhere--on a side table, on a shelf. Place a list of these sheets on the real desk. You can then (1) consult the list on the desk to find a specific sheet of paper, (2) place that specific sheet back on the desk when you need it, and (3) leave the rest of the sheets off the desk.

You have minimized the sheets of paper on the real desk--removed them all. However, you still have ready access to them via the list that remains on the real desk. The sheets of paper on a real desk are analogous to program windows on the Desktop. The list of sheets is analogous to the list of buttons in the Switch Area of the Taskbar.

### Maximized Windows

A sighted user can read the content of multiple windows at the very same time. It often makes sense therefore to arrange multiple windows in a tiled manner or in some other form that pleases a sighted user and suits the task. A blind user, on the other hand, can only read the content of a single window with a screen reader. Therefore, a view in the Display Area with multiple windows has no benefit to a blind user. A view with a single window, with the window made as big as possible, best suits a blind user. A window that fills the entire Display Area is said to be maximized.

# Window Procedures

There are various ways to rearrange windows on the Desktop. The most useful methods are next summarized.

### Rearrange Windows

You must rely on the context menu for the Clock, which is located in the Notification area, to cascade or tile Desktop windows. Follow these steps:

1. Pop up the Clock menu.

   Move onto the Notification area with the Win + B key; move onto the Clock with the horizontal Arrow keys; press the Shift + F10 key.

2. Pick the desired window arrangement

   Move onto it with the vertical Arrow keys and press the Enter key.

### *Minimize Windows*

It is hard to work on a desk when it's cluttered with piles of stuff strewn here and there. Empty work space is necessary for productive work. The same is true for the Desktop. You can employ two different methods to clear off the Desktop; that is, to minimize all its windows. Their buttons are left in the Switch Area of the Taskbar, and keyboard focus is placed over the Display Area.

*Method 1: The Minimize Keys*

Press the Win + M key to minimize all windows and place keyboard focus on the Desktop. All windows are taken off the Desktop; buttons for all of them remain in the Switch area of the Taskbar. Now, you can work on the Desktop unhindered.

Press the Win + Shift + M key to place all the minimized windows back on the desktop. Now, you can work with all of them again.

*Method 2: The Show Desktop Button*

There's a button in the Launch area that minimizes all windows on the Desktop when clicked. You can also activate it with the keyboard, but rely on the Win + M key instead for quicker results.

1. Place the keyboard focus over the Start button.

   Tap either Win key and then tap the Esc key.

2. Place the keyboard focus in the Launch Area.

   Tap the Tab key.

3. Activate the Show Desktop button.

Move onto it with Arrow keys and then tap the Enter key.

### *Maximize the Active Window*

It is hard to read the stuff in a window when it's too small. A large window is necessary for productive work. You can make the active window full size.

1. Activate a particular window.

   Repeatedly tap the Alt + Tab key to reach it.

2. Pop up its Control menu.

   Tap the Alt + SpaceBar key.

3. Pick the Maximize item.

   Tap the X key.

# The Three Standard Window Sizes

An individual program window can possess three different standard sizes. It is maximized when it fills up the entire Display Area. You maximize a program window in order to view as much material as possible within that window. It is restored when it resumes its normal size and placement in the Display Area--as prescribed by the program. You restore a program window when you want to view its content in the standard manner or when you need to view its content along with that of other windows at the same time. It is minimized when it is removed from the Display Area. You minimize a program window when you want to view the items in the Display Area covered over by that window.

A program, as described in the Program Windows chapter, gives you two quick ways to resize its window. You can pick the desired size from the pop-up Control menu linked to its title icon, or you can press a button just right of its title text to set the desired size.

The pop-up Control menu for a program even lets you move the window or make the window a custom size. These two menu commands, Move and Size, are great for a sighted user who wishes to tinker with windows, but they are mostly useless to a blind user. So, ignore them.

Follow these recommendations to work most efficiently with multiple program windows and their programs: Maximize all program windows. Use the Alt + Tab key to cycle among programs and their windows. Restore a

program's window to display the program with its normal view only when a sighted peer or friend wants to see it this way. Minimize all program windows to put them aside and clear off the Display Area when you need to access the Desktop.

Remember that only a single program window is active at any instant. That is, no matter how many program windows are shown in the Display Area, just a single program window can accept keyboard input. This program window, the active window, is presented in front of any other program windows that it may overlap. All of the work area inside the active window is accessible with a screen reader.

Microsoft Word has two handy resize keys: Alt + F5 restores the size of the active window after you maximize it, and Alt + F10 maximizes the program window. These keys don't work in other Office programs.

# CHAPTER 26
# OPEN DOCUMENT

Some folks buy a computer primarily to benefit from its programs. However, other people use a computer primarily to work with documents. These two points of view focus on different items: programs and documents. Some users (usually the old timers) prefer to start with a favorite program and let it fetch the document of interest. Other users (new kids on the block) prefer to start with the document and let Vista activate the program responsible for that document. Vista lets you do either--start with a program or start with a document. The results in either case are the same, but the emphasis and imposed work styles are radically different.

Vista has many ways to fetch documents. This chapter, intended for the beginner, summarizes those techniques. All the described techniques are useful, and you should practice with them all.

## Document Types

Documents are your primary concern. You create them with various programs and work with them in myriad ways. Documents are of different kinds and typically work only with the programs that created them. For example, a document created with a particular word processing program usually works only with that program. A picture (another kind of document) created with a particular paint program usually works only with that paint program.

Documents of different kinds are assigned distinct suffixes by Vista and other programs. These suffixes let Vista and other programs properly match documents with their respective programs. Vista places these suffixes in a list, and this list is checked for the proper suffix whenever a document is activated.

When you pick a document, its suffix is identified in the suffix list, and Vista launches its associated program. For example, if you pick a document with the RTF (Rich Text Format) suffix, then Vista launches the WordPad (or Microsoft Word) program. The upshot of this process is that you can launch a program via a document created by that program. Here are a few ways to do this.

# Recent Items

There are two Most Recently Used document lists. Vista maintains a list of documents, and most programs maintain lists of their own documents. You can pick and open a listed document and launch its associated program.

### *The Vista Document List*

The 15 most recently used documents are listed in the Start window under the Recent Items menu. You can rely on this list as a quick way to open the documents that you Most Recently Used. Follow these steps to reach this list:

1. Pop up the Start window with either Win key.

2. Move onto its right pane with the Tab key.

3. Move onto the Recent Items option with the R key and press Enter.

   The 15 documents Most Recently Used are listed in alphabetical order.

4. Move through the list with the Arrow keys.

5. Press the Enter key when on the desired document.

The program associated with this document launches, the document opens, and you are ready to work.

Sometimes no documents appear in this list. This happens when you haven't created any documents yet or when you have cleaned out the document list. In either case, the word EMPTY appears instead of a list of documents. Follow these steps to clear out the list:

1. Pop up the Start window with either Win key.

2. Move onto its right pane with the Tab key.

3. Move onto the Recent Items option with the R key and press Enter.

4. Display its shortcut menu with Shift + F10.

5. Pick the Clear recent Items option.

### The Program Document List

A program may possess, near the bottom of its File menu, a list of recently used documents. It is often faster to launch the program and use its personal document list. Here are the steps to reach this list for the WordPad program:

1. Launch the WordPad program.

2. Pop up its File menu.

3. Pick any of the numbered items at the bottom of this menu.

# Documents Folder

By default, Vista stores all of your documents in a special folder named Documents. This folder holds individual documents as well as folders filled with documents. Documents is listed in the Start window on the right pane, and you can place a shortcut for documents on the Desktop. Here are the steps to reach a document via the Documents folder:

1. Pop up the Start window with either Win key.

2. Move onto its right pane with the Tab key.

3. Move onto the Documents option with the D key and press Enter.

   Folders are listed in alphabetical order followed by individual documents.

4. Move through the list with the Arrow keys.

5. Press the Enter key when on the desired folder and then when on the needed document.

The program associated with this document launches, the document opens, and you are ready to work.

## Open Dialog Box

The typical program possesses, in its File menu, a handy dialog box. You can reach any of its documents in three steps with this dialog box:

1. Launch the program.

2. Pop up its File menu.

3. Pick the Open command.

4. Specify a document to be opened.

# CHAPTER 27
# THE TWO COMMUNICATION BOXES

Often, Vista or a program needs to tell you the results of a command, have you make a yes/no decision or ask you a vital question. This kind of communication is typically accomplished via a Message Box--a message box lets Vista or other programs tell you something. Often, you need to provide Vista or a program with necessary data--the name of something or the value for some setting. This kind of communication is usually accomplished via a Dialog Box--a dialog box lets Vista or a program carry on a conversation (dialog) with you. These two communication boxes are the subject of this chapter, intended for the beginner.

## Box Overview

### Its Purpose

A box (message or dialog) is a window that automatically and temporarily pops up when Vista or a program wishes to communicate with you-- usually when it needs to tell you something, ask you something or warn you about something or when it wants some information from you. Often, you can, on the other hand, choose a menu item or press a push button that lets you display a dialog box when you wish to communicate with Vista or a program. (A menu item or a push button that pops up a dialog box has an ellipsis--three horizontal dots--just to its right.)

The typical box automatically becomes the active window and has the keyboard focus when it pops up. It remains the active window and keeps the keyboard focus until it is closed; that is, until it goes away.

**Access Note:** A sighted user can tell which window is the active window in the following ways: (1) the color of its title bar is different from all the other title bars (its title bar is said to be highlighted) (2) the active window appears in front of all the windows that may overlap it. A sighted user just looks for the window that looks different. A screen reader usually possesses a hot key that, when tapped, lets you read the title bar of the active window.

Boxes are everywhere. You may meet a dialog box when you start up Vista; this happens when a User Name and Password are required.

You may meet a message box when you start up a program that is visible for a moment or so and then automatically vanishes--closes itself. This kind of message box is typically used to display a product name, a copyright notice and related material. In addition, this kind of message box is often used to display the progress of some activity such as disk 1 percent formatted, disk 2 percent formatted and so on.

You rely on dialog boxes to set program values like the number of lines per page within a document or the speed at which your sound card or voice synthesizer speaks.

Boxes vary in complexity. Some are quite simple to understand and only contain a single-line message like "You Have Mail!" Others are very difficult to figure out and contain multiple tab pages filled with lots of text and controls like a thick notebook with tab dividers. The good news is that they all behave in the same way, and most are readily understood and easily navigated.

### Its Window

The window for a box has a frame (like all windows must) and has a predetermined size and location on the computer display. You can't alter its size or its placement, for it was created to contain just the right amount of material presented in just the right way and was positioned in just the right place on the computer display. The window for a box never contains the Minimize, Restore or Maximize buttons because you can't change its size, but it sometimes contains the Close button.

### Content

The window for a box typically contains:

(1) Box Title--usually the box's name or a brief description of the box.

(2) Box Text--usually a message, an alert or warning, information, or instructions.

(3) Push Buttons--little framed rectangles that contain labels that let you acknowledge or respond to the box text; labels may show text, graphics, or sometimes both.

(4) Other Controls--that let you enter data, choose options or choose items from various kinds of lists.

Message boxes contain push buttons but no other controls. Dialog boxes contain push buttons and always other controls--sometimes a few, and other times a lot.

### *Title*

This is located within the window just beneath its top edge. Typically, it contains the name of the program that caused the message if the box is a message box, and it contains the name of the associated command if the box is a dialog box. Sometimes, it also has Help and Close buttons located just to the right of the title text. These buttons are little framed squares with a symbol within them placed on a shaded background. Help contains the print symbol Question Mark; Close contains two short diagonal lines that cross each other in opposite directions (like the print letter X).

**Access Note:** A screen reader typically possesses a hot key that when tapped, lets you read the title bar of the box.

### *Text*

The text in a box is whatever the creator of the box wished to communicate. The text, located beneath the title bar in the Run dialog, is the instruction:

Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Here are the steps to start the Run command:

1. Tap either Win key to display the Start window.

   Vista places the text cursor in the Instant Search text box.

2. Type Run and wait a moment.

3. Tap the Enter key if the WordPad program has keyboard focus in the Results list. Tap the Tab key three times if not and then tap the Enter key.

Vista starts up the Run command and displays its dialog window. Tap the Esc key to exit this dialog and close its window when you are finished.

### *The Work Area*

### *Push Buttons*

The control panel on the front of a home appliance is, in many ways, analogous to the window for a box. A microwave oven possesses, for example, push buttons with text or graphic labels on them--perhaps Start/Stop, Defrost, Heat Pizza, and the like. Similarly, a push button in a box is nothing more than a little framed rectangle with a label inscribed within it.

There are three push buttons at the bottom of the Run dialog box--OK, Cancel and Browse.

The cook must press a push button on the microwave panel to make something happen. Similarly, the user must press a push button in a box to make something happen.

The user of a home appliance places a finger on a push button and then presses it. The user of a box places the keyboard focus over a push button and then taps the Enter key, or places the mouse pointer over a push button and then clicks it. (More about this later.)

A home appliance possesses a master button that activates the appliance. Similarly, a box possesses a master or default button that activates the entire box. (More about this later.)

In addition to the master button, a home appliance may possess other push buttons. A microwave oven may possess, for example, push buttons that let the cook set the alarm bell, power level, and so forth. The cook presses these extra push buttons if necessary and then presses the Master push button. In addition to the Default button, a box may possess other push buttons. For example, a window for a dialog box may contain push buttons that let the user ask for Help, Browse for files, and so forth. The user taps these extra push buttons if necessary and then taps the Default button.

The panel on the front of a home appliance is laid out so the cook can readily locate all the controls. Similarly, the controls in a box are presented in a standard and hopefully convenient layout. Controls in boxes are oriented in the direction that people read; this is from left to right and from

top to bottom. The most important control is located as close as possible to the upper-left corner of the box. The major push buttons are stacked along the upper right edge of the box or placed across the bottom of the box. The most important push button--typically the default command--is the first button in the group. OK and Cancel buttons are usually placed together.

### *Other Controls*

The window for a dialog box is, in some ways, analogous to a preprinted form with fill-in-the blanks, option boxes, check boxes, and other gadgets. There is a text box, alias fill-in-the blank, located beneath the dialog text in the Run dialog box. It has the label Open: to its left you type the name of a program, folder or document to run/open in this text box.

In summary, you fill out the appropriate form elements in the dialog box. You press any necessary auxiliary push buttons. Then, you press the Default or relevant push button to activate the entire dialog box. (More about this 3-step process later.)

# Box Examples

The previous discussion is primarily motivational. It is not, however, practical, for it doesn't tell you what the typical message or dialog box does or how to maneuver through it. Now, some common message and dialog boxes are showcased. Then, the navigation of box elements is described.

The creator of a box has a particular communication in mind as expressed in the box text and expects certain responses as determined by the available push buttons and other controls. Please study the next four box types, for they illustrate many of the basic concepts used within a box.

The names given to the four types of boxes listed in this chapter are meant to be suggestive of their purposes. They aren't, however, standard terminology used in Vista documentation.

### *The Inform Box*

This type of message box pops up to tell you something. You are required to acknowledge that you have read the message. As soon as you do so, the message box vanishes.

Here is a typical example of an inform box:

New Mail

You have new Mail!

OK

This message box occurs in the Eudora Lite e-mail program. It lets a user know when e-mail is downloaded from the Internet and ready to be read. (Eudora Lite is free and is used by many blind users.)

You merely tap the Enter key to press the OK button. This acknowledges that you have read the message. Then, the message box vanishes, and you are returned to the Eudora Program.

### *The Question Box*

This type of message box pops up to ask you a question. You are most often required to answer the question, but you are allowed sometimes to cancel the enquiry. As soon as you reply or cancel, the message box vanishes.

Here is a typical example of a question box:

WordPad

Save changes to document?

Yes No Cancel

This question box occurs in the WordPad program. It lets the user save or discard changes to a document or cancel the enquiry and return to the document. (WordPad is a simple basic word processor that comes with Vista.)

You merely tap the Enter key to press the Yes button. This acknowledges that you have read the question and wish to save the document. Then, the message box vanishes, and you exit the WordPad Program.

Press the Tab key to move onto the Yes, No, or Cancel button; press the Enter key to activate that button. The Esc key, when you are in a message box, always presses the Cancel button for you when it is present.

### *The Response Box*

This type of dialog box pops up in order to request data from you. You are required to type a response in a text box, but you are allowed sometimes to cancel the enquiry. As soon as you reply or cancel, the dialog box vanishes.

Here is a typical response box:

Run Help Close

Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: --

OK Cancel Browse

You type the name of an item in the text box and tell Vista to launch or open that item with a press of the OK button.

### *The Exclusive Choice Box*

This type of dialog box pops up so you can choose a particular option from several mutually exclusive choices. This is analogous to a beverage box on a restaurant menu that offers you coffee, tea, or milk; you can pick only a single beverage to drink.

You are allowed to make a single choice. You can sometimes merely cancel the offer instead--have nothing to drink. As soon as you acknowledge your selection or cancel, the dialog box vanishes.

Here is an important exclusive choice box in WordPad:

Page Setup Help Close

Portrait

Landscape

Pick the top item to print a page vertically. Pick the bottom item to print a page sideways.

### *Summary of Simple Boxes*

Here, the basic points illustrated by the four types of boxes are summarized. Hopefully, these points give you a sense of what to expect in a typical box.

Every box (message and dialog) has a push button, or perhaps multiple push buttons. A dialog box contains other controls in addition to push buttons. (These other controls are described in the next few chapters.)

The simplest message box is the inform box because it has a single push button, namely OK, and has no other controls.

The single push button, or one of the multiple push buttons, in a box is designated by the creator of the box as the Default button; that is, this push button is automatically pressed when you tap the Enter key.

The next simplest message box is the Question box. It always has the two push buttons, Yes and No, and perhaps the Cancel button. Either the Yes button or the No button is designated, by the creator of the message box, as the Default button; that is, this push button is automatically pressed when you tap the Enter key. Whichever answer chosen as the Default button depends upon the consequences of that answer.

Answer Button Examples: The question "Save document?" has Yes as the default button; the question "Delete document?" has No as the default button.

The answer with the least negative consequences is usually designated as the Default answer.

The simplest dialog box is the response box. It always has the two push buttons, OK and Cancel, and perhaps additional push buttons. The OK button is designated by the creator of the dialog box as the Default button; that is, this push button is automatically pressed when you tap the Enter key.

It has also other controls, namely text boxes. It may contain a single text box like the Run dialog, two text boxes like the Welcome to Windows box, or even more.

The creator of the response box places the keyboard focus over the first text box. You type a response in this text box and then tap the Tab key to move to the next element in the dialog box. Repeated taps of the Tab key move you to the other text boxes, if any, and through all the available push buttons.

The next simplest dialog box is the Exclusive Choice box. It usually has the two push buttons, Yes and No, and perhaps the Help button. It includes the exclusive choice control, called the Option Button. You tap the Tab key to move the keyboard focus to the exclusive choice control, and then you tap the Arrow keys to select the desired choice. Finally, you just tap the Enter key to press the Yes button.

# The Active Keys

The typical dialog box contains different types of elements like text boxes in which you type text and push buttons which you just press. Place the

keyboard focus over a certain type of element, and then only specific keys apply to that element. (The types of elements that can occur in a dialog box and their associated keys are described in the next few chapters.)

There are two keys that let you wander through a dialog box, and two keys that let you dismiss or activate it. Here they are.

### *The Tab Key*

Tap the Tab key to move the keyboard focus from box element to box element in a clockwise direction--left to right and top to bottom; tap the Shift + Tab key to move the keyboard focus in the reverse direction. Repeated taps of either the Tab key or the Shift + Tab key eventually move the keyboard focus back to the box element that initially possessed it.

Both of these Navigation keys skip over elements that are currently inactive. Which elements are inactive, if any, depends on the particular dialog box and current circumstances. Inactive elements (also called Disabled Elements) have gray-colored labels.

**Access Note:** A screen reader usually possesses four very useful dialog box hot keys. There is a hot key that reads the title text and another that reads the entire dialog box--all active as well as inactive elements. Usually, a screen reader announces an inactive element as Grayed or Disabled. There is a hot key that announces the current element and another that announces the Default button. It is prudent to tap the former pair of hot keys to get the lay of the land and tap the latter pair to determine the current state of affairs. Check the current element to find out where you are in the dialog box and check the default button to find out what's about to happen before you cavalierly tap the Enter key.

### *The Esc Key*

A tap of the Esc key presses the Cancel button. If you press the Cancel button, then any changes made in the box are ignored, and the box disappears. Use the Esc key when you make a mistake in a dialog box; it lets you cancel the mistake and start over.

### *The Enter Key*

A tap of the Enter key presses the Default button or the push button that currently has the keyboard focus. If you press the Default button, then any changes made in the box take effect, and the box disappears.

### *The Access Letters*

The elements in a dialog box usually possess text labels. Usually, single letters in these labels are underlined. These letters are called Access Letters, for you can tap them and have something immediately happen. Some access letters merely move the keyboard focus to their respective elements--so you can give the Tab keys a rest. Others immediately activate their respective elements--so care is advised. (It is definitely safer to repeatedly tap either the Tab key or the Shift + Tab key until you reach the desired element.)

**Remark:** You are required to press and hold the Alt key and then tap an access letter when in a text box.

# The Two Borders

You may consider the typical message box a dialog box without other controls. Both types of boxes act the same way in all other respects. Therefore, the discussion now focuses on dialog boxes because that is where most of the action occurs.

A dialog box contains diverse elements, push buttons and other controls. Push buttons, also called Command Buttons, are the most essential elements in a dialog box. The other elements are of various kinds and let you perform needed supplementary tasks as described in the next few chapters.

### *The Dotted Border*

A dialog box pops up with the keyboard focus located over some particular element--it may be a push button or some other type of control and it is usually positioned in the upper left-hand corner of the dialog box. This initial element, with the keyboard focus, is visually distinguished via a dotted border that surrounds its label.

### *The Darker Border*

The push buttons are often grouped in a row near the bottom edge of a dialog box or grouped in a column near the right edge of a dialog box, sometimes both. An initial push button visually stands out from the bunch, for it possesses a darker border than the others. This darker push button is the initial Default button; that is, the push button most frequently activated by the typical user. You merely tap the Enter key to press it.

### *Border Summary*

The dotted border lets a sighted user visually determine which element in the dialog box currently possesses the keyboard focus. The dark border, on the other hand, lets a sighted user visually determine which push button is the current Default button. These two borders belong to the same element in a dialog box only when the keyboard focus is over some push button.

Repeated taps of the Tab key move the keyboard focus from element to element throughout a dialog box. The dotted border moves along with the keyboard focus so the element currently with the keyboard focus has its label surrounded by it. Repeated taps of the Tab key eventually move the keyboard focus back to the element that initially possessed it. An element (other than the Default button) must possess the keyboard focus (have the dotted border) before you can interact with it.

Repeated taps of the Tab key eventually move the keyboard focus over a push button. This element now has the keyboard focus so it possesses the dotted border around its label and also becomes the Default button so it also possesses the darker border. A tap of the Enter key activates it. Please note that the dark border automatically jumps back onto the initial Default button as soon as the keyboard focus moves onto an element other than a push button.

# Dialog Tab Pages

A dialog box can hold only so much material and often, a complicated dialog box can't fit all its elements in a single window. Therefore, the window of the dialog box is treated like a tab page in a notebook. Related dialog elements are placed on the same tab page for your convenience.

**Access Note:** Tab items, in an office, are typically index cards or pages that have staggered protrusions at their top edges on which labels are placed. Feel a loose-leaf notebook or a file drawer in a business office if you are unfamiliar with tab pages. Do the following if you lack access to a sample of tab pages: take three sheets of paper and paste, glue, staple, or whatever a little strip of paper at the left top edge of page 1, another little strip of paper at the middle top edge of page 2, and another little strip of paper at the right top edge of page 3. Make sure that the strips stick out over the top edges of the pages. Place page 1, page 2, and page 3 in a pile, in that order from top to bottom. You can feel the tab of page 1 on the left, the tab of page 2 in the middle, and the tab of page 3 on the right.

The tabs in a notebook or a card file are labeled. The reader skims the labels until the desired tab page is found and then flips to that tab page. Similarly, the tabs in a dialog box are also labeled. The user skims the labels till the desired tab page is found and then activates that tab page.

Across the top of a multi-page dialog box are text labels that represent the tab pages in the pretend notebook. The tab label on the far left is usually in effect when the dialog box pops up; that is, its tab page fills the dialog window.

### *Tab Page Navigation*

You can activate a tab control and concurrently display its tab page with the keyboard or with the mouse. Here are the details.

There are three ways to move the keyboard focus to a tab control and activate it--this displays its tab page in the dialog window:

> Repeated taps of the Ctrl + Tab key move the keyboard focus from tab label to tab label and displays its tab page. Repeated taps of the Ctrl + Tab key eventually move the keyboard focus back to the initial tab label and its tab page. The active tab page fills the dialog box.
> A tab label may possess an access letter. Tap it to display its tab page.

> The tab label of the currently displayed tab page is just another element in the dialog box. Repeatedly tap the Tab key until this element, the tab page label, has the keyboard focus. Then, the Arrow keys move the keyboard focus through the other tab controls. A tap of the Enter key brings the selected tab page forward. You will find that this Arrow key method is handy when a dialog box has tab labels arranged in multiple rows at the top of a dialog box. Use the Left/Right keys to move through a row of tab labels, and use the Up/Down keys to move from row to row of tab labels. You tap the Enter key, when the keyboard focus is over the desired tab label, to have its tab page appear in the dialog box. This method to pop up a particular tabbed page is a little more involved, but often quicker when there are multiple rows of tab labels.

**Remark:** The leftmost tab page usually fills the dialog window when you enter a multi-page box, and the initial element on this page has the keyboard focus. A tap of the Shift + Tab key backs up the keyboard focus and places it over the tab page label. You can then tap the Arrow keys to move the keyboard focus through the other tab page labels located at the top of the dialog box just beneath the dialog title. Just tap the Enter key when you reach the desired tab label to bring its tab page forward.
**Access Note:** Pages in a dialog box act similarly to buttons in the Switch Area of the Taskbar. Ctrl + Tab moves through the pages; Alt + Tab moves through the buttons. A tap of the Enter key activates pages and buttons. A screen reader may announce the text of a tab label and then read the word Tab and may announce the text of a button and then read the word Tab.

### *Element Navigation*

The standard dialog box keys (Tab, Esc, and Enter) all work no matter which tab page fills the dialog box. The applicable active keys and access letters still work as well.

### *Multiple Page Example*

There is a handy Property Sheet (dialog box with multiple tab pages) that lets you customize the Taskbar and the Start window. This property sheet now makes a brief debut:

1. Display the Start window.

2. Display the Control Panel (in Classic view).

3. Pick the Taskbar and Start Menu option.

Up pops a property sheet with four tab pages labeled Taskbar, Start Menu, Notification area, and Toolbars. The tab page labeled Taskbar has five check boxes that let you adjust the appearance of the Taskbar. The tab page labeled Start Menu lets you pick between Vista and Windows XP format for the Start window and customize the menu layout; it also lets you show or hide recently used files and programs. The tab page labeled Notification Area lets you show or hide icons in the Notification area. The tab page labeled Toolbars lets you add and remove toolbars from the Launch area on the Taskbar. All of these tab pages have three push buttons--OK, Cancel, and Apply. Use the Apply button to accept changes on a tab page and not exit the dialog box. Then you can make changes on another tab page. Press the OK button when finished.

# Communication Box Help

A communication box (dialog or message) may offer two kinds of assistance: Box Help and Item Help. Here are descriptions of both.

### *Box Help*

You may want an overview of the communication box--its purpose, its use, etc. Often Vista and other programs oblige and place a push button labeled Help in the box window. If you press this Help button, then a help window for the box is displayed and filled with, more often than not, helpful information about the box as a whole.

A help window for a box provides an overview of the box, assistance with the box or reasons why the box appeared. For example, the help window for a message box may tell you the causes and the remedies for an error.

Browse the help window, and then tap the Esc key to make it vanish. You are returned to the communication box. A communication box may, or may not, possess a Help button. For example, the dialog box for the Run command lacks a Help button.

### Item Help

A communication box may offer help on some, and perhaps all, of its items. Help for items is provided in two different ways by the What's This? button and by the What's This? command.

The What's This? Button is usually placed on the title bar; occasionally, it is placed on a tool bar. It looks like a print Question Mark placed on a shaded background. The command What's This? is sometimes placed on the program's Help menu and often on the context menus for items.

Here is how you can elicit help for a particular item in a communication box.

### Method 1

1. Place the keyboard focus over a particular item in the box window.

   Use the Tab key or the access letter to navigate to the item.

2. Display its help.

   Tap the F1 key. The desired context help for the item is displayed when available, or the help window for the entire box is displayed.

3. Browse the help window, and then close it.

   Tap the Esc key to dismiss the help window. You are returned to the communication box, and the keyboard focus remains over this item.

### Method 2

1. Place the keyboard focus over a particular item in the box window.

   Use the Tab key or the access letter to navigate to the item.

2. Display its help.

   Tap the Shift + F1 key. The desired context help for the item is displayed when available, or the help window for the entire box is displayed.

3. Browse the help window, and then close it.

   Tap the Esc key to dismiss the help window. You are returned to the communication box, and the keyboard focus remains over this item.

**Method 3**

1. Place the keyboard focus over a particular item in the box window.

   Use the Tab key or the access letter to navigate to the item.

2. Pop up its context menu.

   Tap the Shift + F10 key or the Context key to do this. Help is available for this item when its context menu contains the What's this? command at the top.

3. Activate the What's this? command if available.

   Tap the Enter key. The desired context help for the item is displayed.

4. Browse the help window, and then close it.

   Tap the Esc key to dismiss the help window. You are returned to the communication box, and the keyboard focus remains over this item.

# CHAPTER 28
# THE FOUR BUTTONS

Buttons are controls in VISTA and in other programs that start various activities or change the attributes of various objects. There are four types of buttons: Push Buttons, also called Command Buttons; Option Buttons, also called Radio Buttons; Check Boxes; and Outline Buttons. This chapter, intended for the beginner, introduces these buttons.

## Push Buttons

Every home appliance possesses push buttons. For example, the remote control for a TV has the On/Off button, the Mute button, the Select channel buttons, and lots more. The typical microwave oven has push buttons for Start, Defrost, Pop Corn, and whatever else the manufacturer considered useful.

VISTA and other programs also rely upon lots of push buttons. Push buttons are displayed as little bordered rectangles with labels (text, graphic, or sometimes both) within them.

### Push Button Labels

A push button possesses a label. Its label represents the action the push button starts. The label for a push button in a tool bar is just a graphic; the label for a push button in a dialog box is just text; and the label for a push button in the Switch Area of the Task bar has both a graphic and text.

The label for a push button in a dialog box usually contains an underlined letter, called its Access Letter. A tap of the access letter (or Alt + Access Letter) immediately activates the push button.

The label for a push button looks grayed (dimmed) when the push button is unavailable; that is, when current circumstances make it unusable.

**Access Note:** A screen reader may inform you of the unavailability of a push button with the following announcements: push button grayed, push button dimmed, push button disabled, or whatever. This means that you can't use that push button.

The text of a label is usually a single word like OK or Cancel. Often, it is visually distinguished from other text by a brighter or deeper color.

A label may have a graphic indicator to its right within the button's bordered rectangle. An ellipsis (a row of three dots) indicates that the push button, when pressed, leads to a dialog box; that is, further data are required. A pair of greater than signs (>>) indicates that the push button, when pressed, displays additional options; this kind of push button is called an Unfold Button. A little downward triangle indicates that the push button, when pressed, leads to a menu; this kind of push button is called a Menu Button.

### Push Button Activation

You can activate a push button in two ways:

> Move the keyboard focus over the push button with the Tab key, and then tap the SpaceBar key.
> Just tap the push button's access letter; that is, tap the underlined letter in its label.

Either method starts the command associated with the push button.

A push button may possess a shortcut menu. Move the keyboard focus over the push button, then Tap the Shift + F10 or Context key.

Usually, push buttons have access letters or shortcut keys assigned to them; you can tap them rather than manually move the keyboard focus.

Access Letter and Shortcut Key Examples: the buttons Yes and No possess the access letters Y and N; you only need to tap the letters Y and N to activate these buttons. The button Cancel is assigned the Esc key as its shortcut key; you only need to tap the Esc key to activate this button. The button OK is assigned the Enter key as its shortcut key; you only need to tap this key, when OK is the Default button, to activate it.

The press of a push button takes effect immediately within its context. For example, if you press a push button in a tool bar, then its command is instantly activated. If you press a push button in a dialog box, then it may initiate some activity within the box or act upon some item and then close the box.

A push button, in some situations, represents an object and its default action. For example, a push button in the Switch Area of the Task bar represents a window and the Restore command. If you press a push button here, then its associated window reappears in its standard size.

A push button, in other situations, represents an On/Off switch. You mostly find On/Off buttons in tool bars. They look depressed when they are on. Another press turns them off.

### Push Button Examples

The names for groups of push buttons are meant to be suggestive. These names aren't standard terminology. However, the names for individual push buttons are standard.

### The Two Answer Buttons

Often, you are asked a question which you must answer. Vista and other programs typically present the Yes and No buttons as answers to questions. The answer with the least disastrous consequences is made the Default answer.

### The Two Install Buttons

Most often, a program comes with a setup utility that helps you install the program on the hard disk. You can, for example, pop up the Start menu and

activate the Run command. Then, you would type in its text box something like this:

d:setup

to begin the setup process. This command is used when your CD drive is labeled D: and the program is on a compact disk.

Often, a setup utility uses the Back and Next buttons as progress commands. You press the Next button to go to the next setup step; you press the Back button to return to the prior setup step--to fix something or change something.

### *The Two Progress Buttons*

A program may perform some kind of activity (like email transfer) that begins, continues for a while, and eventually stops.

Often, a program uses the Start and Stop buttons as progress commands. Push the Start button to commence the activity; push the Stop button to halt the activity--when something goes wrong.

**Remark:** The Cancel and Stop commands do different things. The Cancel button prevents an activity--nothing happens; things remain as they were. The Stop button halts an activity in progress--something did happen and usually can't be reversed.

### *The Four Dismiss Buttons.*

A box (message or dialog) remains on the computer display until you press a push button to dismiss it. There are four push buttons with text labels, which let you leave a box under different circumstances. Here is the scoop.

### **The OK Button**

The OK button is typically the only push button in a message box. You press it with a tap of the Enter key to acknowledge that you have read the message and are ready to proceed.

The OK button often occurs in a dialog box. It has a different meaning in this box where it means that you accept any changes that you made in the box and wish to proceed. A tap of the Enter key presses the OK button, except when the keyboard focus is over another push button.

### **The Cancel button**

Sometimes, a dialog box pops up, and you decide to ignore it. Perhaps you make a mistake in a dialog box, and you need to eliminate it. Other times, you make changes in a dialog box, but decide to discard them. In these situations, you can press the Cancel button with a tap of the Esc key to dismiss the dialog box and leave things as they were before it popped up.

**The Close Button**

Some dialog boxes let you perform repetitive acts like find the next misspelled word. In such boxes, the OK button is inappropriate, for you don't necessarily want to exit the box. Instead, you may wish to repeat the current task--look for the next misspelled word, find the next occurrence of the word Dog, or who knows what.

These kinds of dialog boxes possess the Close button instead of the OK and Cancel buttons. You press it to dismiss the dialog box and discontinue the repetitive activity.

**The Apply Button**

Often, Vista and other programs are kind to you. They let you try something (a different color, a new setting, or whatever) without commitment. You can change your mind and try something else. The Apply button lets you do this. Press it, and then the change temporarily takes effect so you can assess the results. You can then reject it or accept it.

***The Help Button***

This is a push button that may occur in a dialog box with Help as its label. Press this button to obtain an overview of the dialog box--its purpose, its use, etc. On the keyboard--repeatedly tap the Tab key to reach it, and then tap the Enter key, with the mouse--click it. Either action displays a help window. Tap the Esc key or click outside the Help window to dismiss the Help window.

# Option Buttons

Imagine a radio from yesteryear with a row of round buttons across its front. A push of a specific button selected a particular radio station and deselected the previous radio station. The selected station remained selected with the radio turned on or off. A push of a button selected just a single station--never multiple stations. (The listener couldn't tune in two stations at the very same time.)

The row of round radio buttons represented mutually exclusive choices. You picked a particular radio station, and then all the other stations were rejected. Similarly, you are often required in Vista and in other programs to pick a single option from a group of related options.

A group of related but mutually exclusive options is called an Option Button. Usually, the options are displayed in a vertical list and appear as tiny hollow circles with text labels placed to their right. The tiny circles are stacked in a column like elevator buttons; their labels are left aligned.

Some option is always selected in an option button. The selected option is visually indicated by a dot at the center of its tiny circle. Select a different option in the option button, then the dot moves from the previous option to the new option. In other words, the selected option shows a dot in its tiny circle and all the other options have empty circles. The selected option button is said to be checked.

### *Option Button Labels*

An option button, as well as its individual options, possesses a text label. Its label represents the value or effect for that option button. For example, a word processor may possess an option button labeled Alignment with three options labeled Left, Center, and Right. The label for an option in an option button usually contains an underlined letter, called its Access Letter. A tap of an access letter (or Alt + Access Letter) immediately selects the option with that access letter. The label for an option button looks grayed (dimmed) when the option button is unavailable; that is, when current circumstances make it unusable.

**Access Note:** A screen reader may inform you of the unavailability of an option button with the following announcements: option button grayed, option button dimmed, option button disabled, or whatever. This means that you can't use that option button.

### *Option Button Selection*

You can select the desired option in an option button in two ways:

Move the keyboard focus onto the option button with the Tab key. Tap the Up/Down keys to move to the desired option. The option with the keyboard focus becomes the selected option. Tap the Tab key to move off the option button.
Just tap the desired option's access letter; that is, tap the underlined letter in its label.

Either method selects the desired option within the option button.

Usually, option buttons have access letters assigned to their options; you can tap them rather than manually move the keyboard focus. A tap of an access letter for an option button simultaneously selects it and places the dot within its tiny circle. The selected state of an option button takes effect when you press the appropriate push button in the dialog box.

# Check Boxes

Consider the typical governmental form. Some items in the form appear as tiny squares with text labels placed next to them. You are told to check as many boxes that apply to you. You read the items and place a check mark in the boxes for those items that apply to you and leave the other check boxes empty.

You may check none of the boxes, perhaps a few boxes, and possibly all the boxes. Which boxes you check and how many boxes you check depends on the items listed. For example, you would check Home Owner and Married if you just purchased a house after your wedding, but you wouldn't check Student if you just graduated.

Vista and other programs also rely upon lots of check boxes. They appear as tiny squares (occasionally as diamonds) with text labels placed to their right. They let you switch options on and off. Options with check marks in their squares are on; those with empty squares are off. The selected check boxes are said to be checked.

Check boxes are independent of each other. You can check as few or as many as you wish and in any combination. Typically, there are two to seven check boxes in a group of related check boxes.

Check Box Example: The WordPad program lets you look for (find) text within a document. You tap the Ctrl + F key to get started. The Find box pops up. It has a text box in which you type the sought after text. It has two check boxes: The Match Whole Word Only box lets you restrict your search to a single word. The Match Case box lets you restrict your search to text with the capitalization of the text you typed in the text box. If you check neither box, the search is unrestricted. If you check both boxes, the search only finds text that exactly matches the text you typed in the text box.

### Check Box Labels

A check box possesses a text label. Its label names the attribute or property that is on or off. The label for a check box usually contains an underlined letter, called its Access Letter. A tap of an access letter (or Alt + Access Letter) immediately changes the state of the check box. The label for a

check box looks grayed (dimmed) when the check box is unavailable; that is, when current circumstances make it unusable.

**Access Note:** A screen reader may inform you of the unavailability of a check box with the following announcements: check box grayed, check box dimmed, check box disabled, or whatever. This means that you can't use that check box.

### *Check Box Selection*

You can select the desired state (on or off) for a check box in two ways:

Move the keyboard focus onto the check box with the Tab key, and then tap the SpaceBar key to change its state.
*Just tap its access letter; that is, tap the underlined letter in its label.*

Either method changes the state of the check box.

Usually, check boxes have access letters assigned to their labels; you can tap them rather than manually move the keyboard focus or the mouse pointer. A tap of an access letter for a check box simultaneously selects it and places a check mark within it. The selected state of a check box takes effect when you press the appropriate push button in the dialog box.

**Remark:** A check mark is another example of a toggle switch because it changes its state with a single press and changes its state back with another press.

# Outline Buttons

The fourth type of button is called an Outline Button. This type of button either shows or hides a list of push buttons, a list of links or a list of details about a highlighted disk, folder or file.

# Group Boxes

A sighted user is attracted to isolated items. Related items need to be set off so they are readily discernible from the rest of the displayed items.

A group box is a fancy frame that surrounds a group of related controls. Often, a group box surrounds the options in an option button, a bunch of check boxes, or items related to the same topic. The label for the group box is typically a general description of the items contained within the group box. You navigate to items in a group box via the Tab key or via the access key provided by its label.

WordPad offers a typical example of a group box in its Paragraph box--a dialog box, which lets you specify the features for a paragraph. Follow these steps to get to its Indentation group box:

1. Launch the WordPad program.

2. Display its Format menu.

3. Pick the Paragraph item.

You are placed in a dialog box. The input focus is over its initial element which is a group box. Its label, Indentation, tells you that its items set the indentations for a paragraph. There are three separate indents: left margin, right margin, and first line.

**Access Note:** A screen reader typically announces the group box label and then the item as you navigate through the group box. It announces the group label along with every item in the group box so you know that the item is within the group box. It no longer announces the group box label when you navigate to an item outside the group box.

# CHAPTER 29
# THE THREE TEXT BOXES

Often, you need to supply Vista or other programs with some data--perhaps a file name, a user-defined shortcut key, a date for the clock on the Desktop and so forth. This need is handled in Vista and other programs by a control called a Text Box. A text box is analogous to a fill-in-the blank on a printed form. There are three common types of text boxes: the Edit Box, the Shortcut Key Box, and the Spin Box. This chapter, intended for the beginner, debuts the three text boxes.

## The Edit (Alias Text) Box

### Edit Box Overview

An edit box is a control that lets you enter a tidbit of information requested by a program or needed by a dialog box. It works like a fill-in-the-blank on a printed form. You read the label near the blank, which describes its purpose, and then enter an appropriate response.

### Its Content

An edit box is a bordered rectangle in which you type and edit text. Typically, it permits a single line of text to be entered.

The creator of an edit box decides what and how much can be entered into the box. For example, an edit box designed for the entry of file names is very long and allows virtually any text because file names are so diverse. A long edit box may have a scroll bar and let the user horizontally scroll its content. An edit box designed for the entry of zip codes is precisely 5 or 10 characters long and only permits the dash and the 10 digits. It may auto-exit; that is, move the keyboard focus onto the next control when the last digit is typed.

### Its Label

Typically, an edit box has a text label near it--to its left or over it. Normally, the label describes the potential content of the edit box. The label usually contains an underlined letter, called its Access Letter. A tap of the access letter (or Alt + Access Letter) immediately navigates to the edit box. Its label looks grayed (dimmed) when the edit box is unavailable; that is, when current circumstances make it unusable.

**Access Note:** A screen reader may inform you of the unavailability of an edit box with the following announcements: edit box grayed, edit box dimmed, or edit box disabled. This means that you can't use that edit box.

### Its Focus

You can move the keyboard focus onto an edit box in two ways:

Repeatedly tap the Tab key when in a dialog box until you reach the edit box.

Just tap its access letter; that is, tap the underlined letter in its label.

Either method places the keyboard focus in the edit box. You can then read or change its content.

### Edit Box Cursors

The keyboard cursor takes on a special visual form when placed inside an edit box. The keyboard cursor looks like a blinking short vertical bar. This particular visual form of the keyboard cursor is called the Text Cursor. It marks the spot where text is typed. It is found in every text box and in the WordPad work area.

**Access Note:** A screen reader may inform you that the text cursor is active with the following announcements: Edit Box, Edit Control, Edit Field, or just Edit. This means that you are able to type text.

### Edit Box Operations

You can move through the text in an edit box, and you can include new text or remove old text. Here are the details.

### Text Navigation

Typically, you can type a single line of text in an edit box. Consequently, only the horizontal Navigation keys and their selection keys are applicable.

### Text Insertion

You can include new text in an edit box. Position the text cursor, and then begin to type.

### Text Deletion

You can remove a character one at a time from an edit box. Position the text cursor, then tap the BackSpace key to erase the character left of the text cursor or tap either Del key to erase the character at the text cursor.

Also, select some text, and then a tap of the BackSpace or either Del key erases all the selected text. Erase a character or selected text, and then the rest of the text is pushed back together.

**Access Note:** A screen reader typically possesses a hot key that announces the current character. This is the character at the insertion point.

### Edit Box Example

Often, you want to read a file that you previously created in the WordPad program. Perhaps, you wrote a file named My Job Resume that contains your personal data. Here are the steps to access it:

1. Launch the WordPad program.

2. Pull down its File menu.

3. Pick the Open item from this menu.

You are placed in a dialog box. The input focus is over its initial element which is the edit box:

File name: --

You are expected to enter a file name. Type the file name (e.g., My Job Resume) and press the Open button in the dialog box, then WordPad attempts to locate and open a file with this name.

# The Shortcut Key Box

Sometimes, you may wish to immediately start a program or access a feature in a program. Often, you can assign a shortcut key that lets you do this.

### *Its Content*

A shortcut key box (also called a Hot Key Box) is a special edit box that lets you define a shortcut key. Typically, you type a letter or word in the box, then it, with or without modifier keys, becomes the shortcut key. (The creator of the shortcut key box decides whether any modifier keys are to be used with your entry.)

### *Its Operation*

The procedure to define a shortcut key is presented in Chapter 3.

# The Spin Box

A spin box is a control in Vista and in other programs that lets you select a value from a limited range of possible values. It is analogous to the knob on an ancient TV set that lets the viewer select a channel. The viewer rotated the knob a click at a time either upward to increase the channel number or downward to decrease the channel number. A spin of the knob cycled through all the TV channels in order.

Vista and other programs rely on spin boxes when the user must select a value from a limited number of related values. For example, Vista interprets the date as three text boxes when the user resets the Desktop clock. A date has the form:

Month -- Day -- Year --

The user picks a value in the range January through December for the Month box, picks a value in the range 1 through 31 for the Day box, and enters some value for the Year box. The text boxes Month and Day are examples of spin boxes, and the text box Year is a standard edit box.

### Its Content

A spin box is a text box that allows the user to select a value from a limited list of appropriate values. Assume, for example, that the current date is June 15th. The Month box displays the value June, and the user can replace it with any value in the range January through December. The Day box displays the value 15, and the user can replace it with any value in the range 1 through 31.

### Its Operation

The user can select a value for a spin box in two ways:

1. Delete the current value and type the new value.

   This is possible because a spin box is also a standard edit box.

2. Tap the Up key to select the prior value; tap the Down key to select the next value.

The values are ordered, and the Up/Down keys cycle through all the values.

A spin box is really an edit box with a pair of buttons, vertically aligned, and placed to its right. These buttons let you cycle through the limited list of values--hence the name Spin Box. The value displayed in the edit box changes as you move through the list; the whole list is never displayed.

# CHAPTER 30
# THE SIX LIST BOXES

Vista and Santa Claus have something in common: they both like to make lists. Santa Claus makes lists of toys and treats for good boys and girls; Vista makes lists of file names, document types and other things for users. This chapter, intended for the beginner, debuts the six list boxes.

## List Box Overview

### Its Purpose

A list box is a control that usually occurs in a dialog box, but it can occur elsewhere. A list box is similar to a menu but more general in purpose, content and form. A list box displays its items in a vertical list and usually in some explicit order--perhaps alphabetical or chronological. The items in a

list box are usually textual in nature like font types and document types, but they can be non-textual--colored patches or graphic elements like icons (little pictures).

Sometimes, you can specify the arrangement of the items in a list box. The possible layouts are called List Views and are selected from the View menu of the program responsible for the list box.

A list box lets you select items in its list and then act upon them. You move keyboard focus onto a list box control, make the desired choices, and then move the focus off the list box control.

Sometimes, you can invoke a command that explicitly affects the selected items in the list--copy them, delete them, or whatever. Most often, you merely close the dialog box that contains the list box and let a command take place.

### Its Content

A typical list box can exhibit at least three to eight items at a time, but the list may actually contain many more items. A list box displays a vertical scroll bar near its right edge when the items in the list extend beyond the box border.

The content of a list box may change from time to time. For example, the list of files on a disk shrinks when you delete files from the disk and expands when you place files on the disk.

### Its Navigation

A list box control usually possesses a label which describes its content, and exhibits an underlined letter called an Access Letter. Its access letter lets you immediately navigate to the list box control--just tap its access letter. However, the list box label may appear, under certain circumstances, gray in color. This means the list box is unavailable in the current context.

**Remark:** A list box control lacks its own label mechanism; so, a Static Text Field is often used to contain its label. However, a screen reader may fail to read this type of field.

If you move to a list box control, then you can use standard Navigation keys to move through the items in the list; that is, scroll through the list and bring items into view. List Navigation keys include the Arrow, Page and Extreme keys.

The standard navigation technique to move through a list box using Navigation keys is tedious when the list is long. The list can contain dozens or even hundreds of items. Therefore, a list box also permits navigation through its items via Text keys. If you tap a Text key (letter or digit), then keyboard focus moves to the first item, if there is any, that begins with that character. After a few moments, tap that Text key again, and the keyboard focus moves to the next item, if there is another, that begins with that character. Alternatively, quickly tap several successive Text keys, then keyboard focus moves to the item that begins with that sequence of characters.

### Its Form

A list box is classified by the type of selection it allows (single or multiple item), by its appearance (as a real list or as a compressed list) and by the company it keeps (a text box). There are six different types of list boxes: four permit the selection of a single item, and two allow the selection of single or multiple items. Here is a tour of the six list boxes.

# The Single Selection Box

### Its Purpose

A list box, called Single Selection, lets you pick a single item in the list. Its items represent mutually exclusive choices. You select an item, and then all the other items are rejected. That is, it acts and works like an option button, but usually contains far more items than an option button.

### Its Content

A single item is always selected in a single selection box. The selected item is visually indicated by a different color; that is, it is highlighted. Select a different item in the list box, then the highlight moves from the previous item to this item. The selected item is always highlighted; all the other items have the normal color. Only a single item is selected at a time!

### Its Navigation

A Navigation key or a Text key places keyboard focus on an item in a single selection box and selects it. Here are the steps:

1. Navigate to the list box control with the Tab key or with the access letter in its label.

   Now, keyboard focus is over the list box control.

2. Use the Navigation keys or Text keys to move keyboard focus onto an item in the list.

   Navigation selects that particular item in the list.

3. Navigate to a different control.

You move off the list box control and go about your other tasks. (The selected item remains selected.)

Experiment with the WordPad program:

1. Launch the WordPad program.

2. Display its File menu.

3. Pick the New item.

   You land on the New Document Type list, a single selection list, with three items.

4. Move through the list with Arrow keys.

   You select a different document format for the WordPad document.

5. Press the Tab key to move off the list and onto the next control, the OK button.

# The Combo Box

### *Its Purpose*

A combo box combines a text box with a list box and offers you the benefits of both. A combo box lets you type text directly in the text box to match an item in the list and also lets you directly pick an item in the list which then appears in the text box.

### *Its Content*

Some item is always selected in the list box and shown in the attached text box. The selected item in the list box is visually indicated by a different color; that is, it is highlighted. Select a different item in the list box, then the highlight moves from the previous item to this item, and this item appears in the attached text box.

The text box and its associated list box are linked together. As you type text into the text box, the list box scrolls to the item in the list that is the nearest match. Conversely, when you select an item in the list, it automatically becomes the content of the text box.

### Its Navigation

Navigation works as usual. Use horizontal Navigation keys to move through the text box; use vertical Navigation keys to move through the list box.

Experiment with the WordPad program:

1. Launch the WordPad program.

2. Display its Format menu.

3. Pick the Font item.

You land on the Font list, a combo box list, with the current font highlighted.

There are three combo boxes in succession. The leftmost combo box is the Font box. The items in this list are the possible font types for the text of a WordPad document.

# The Drop-Down Box

### Its Purpose

A single selection box is convenient but takes up a lot of valuable dialog box real estate. So, when dialog box space is at a premium, a single selection box is displayed as a drop-down box. It is just a single selection box presented in a visually compact form.

### Its Content

Just the currently selected item in the list is displayed in a strip, a little rectangular box; the rest of the list isn't displayed. There is a downward arrow inside this strip near its right edge. This indicator, called the Scroll Down symbol, signals the presence of a hidden list.

### Its Navigation

You can change the currently selected item when the list is absent (not shown) or when the list is displayed. You can select an item in a drop-down box just like you do in a list box. Here are the details:

1. Navigate to the drop-down box control with the Tab key or with the access letter in its label.

   Now, keyboard focus is over the drop-down box control.

2. Tap the Up/Down keys.

   The item displayed in the strip changes as you navigate through the invisible list.

3. Alternatively, tap the Alt + Down key.

   This displays (drops down) the list. The list usually appears beneath the strip that contains the currently selected item. (Sometimes, the list is displayed instead over the strip.)

4. Use the Navigation keys or Text keys to move keyboard focus onto an item in the displayed list.

   Navigation selects that item.

5. Tap the Alt + Up key or navigate to a different control to close the drop-down box and retain the new selection. (The Esc key also closes the drop-down box but cancels the new selection.)

   The drop-down list disappears, and the newly selected item is displayed in the strip.

Either method selects an item in the drop-down box. Then you move off the drop-down box control and go about your other tasks. (The selected item remains selected.)

# The Drop-down Combo Box

### Its Purpose

A drop-down combo box combines the characteristics of a text box with those of a drop-down box. That is, the strip displays the currently selected item and lets you type a different item.

### Its Content

A drop-down combo box is often employed by programs when you are required to provide a file name. You can type a file name directly into the strip, the text box, or you can browse the drop-down list for a file name.

The closed form of a drop-down combo box looks just like that of a closed drop-down list box, but the strip or text box, remains interactive. This means that you can type text into the strip to select an item in the drop-down list even when the drop-down list is closed.

### Its Navigation

Navigation is the same in both the text box and the drop-down box.

Here is a typical example of a combo drop-down box. The command Run pops up a dialog box that contains a drop-down combo box. This drop-down combo box has a text box with the label Open: placed outside near its left edge and with a downward arrow placed inside near its right edge. The currently selected item from the drop-down list fills the text box. This drop-down list contains previously accessed programs and documents. (This combo box is really a drop-up combo box because its list pops up over the text box instead of beneath the text box.)

You can select an item for a combo drop-down box in three ways: (1) Type the desired item directly into the text box, (2) tap the Up/Down keys till the desired item appears in the text box, or (3) drop the list and select the desired item from the list.

# The Extended Selection Box

### Its Purpose

A list box, called Extended Selection, lets you pick a single item or a single block of items in the list. That is, it lets you extend the selection from a single item to multiple adjacent items.

An extended selection box is often employed by programs when you need to work with a group of file names, e-mail messages, and the like. It lets you manipulate a group of adjacent items--move them, duplicate them, read them, etc.

### Its Content

Usually, the extended selection box presents its items in a single column layout. However, a very common form of this box allows multi-column arrangements for its items.

A list view is an extended selection box that displays specialized items. Every item is an icon (little picture) with a text label (a brief description) near it. A list view permits four different views (arrangements) for its items.

### *Its Navigation*

No item is initially selected in an extended selection box! You can select the item with keyboard focus or move keyboard focus to a different item and select it. Then, you can extend the selection to adjacent items. Here are the details:

1. Navigate to the extended selection box control with the Tab key or with the access letter in its label.

   Now, keyboard focus is over the extended selection box control.

2. Tap the Ctrl + SpaceBar key, or tap a navigation or Text key.

   The item with keyboard focus is selected.

3. Hold a Shift key and tap a Navigation key repeatedly. Release the Shift key.

   This method extends the selection to a block of items.

4. Navigate to a different control.

   You move off the extended list box control and go about your other tasks. (The selected block of items remains selected.)

5. Alternatively, tap any Navigation key by itself.

   This deselects any item or block of items that was previously selected.

No item in the list is selected when you navigate to the list box control. You must tap a navigation or Text key, and then the item in the list that corresponds to that Navigation key becomes selected. For example, tap the Home key, and then the top item in the list is selected.

The currently selected item changes as you move keyboard focus through the list. The currently selected item is highlighted.

Here is an important example of a list view. The Display Area of the Desktop is the omnipresent list view. Every item in this list is an icon (little picture) with a text label (a brief description) beneath it. Its items are placed in multiple columns when they all can't fit in a single column.

Navigate to the Display Area, then an item has keyboard focus, but it remains unselected.

**Access Note:** A screen reader may say, as you move onto the Desktop, something like this, "Desktop List View Not Selected Computer." You are being told: (1) You are on the Desktop, (2) it is a list view, and (3) the item with keyboard focus Computer is not selected.

# The Multiple Selection Box

### Its Purpose

A list box, called Multiple Selection, lets you pick multiple individual items or multiple separate blocks of items throughout the list. Typically, you select a single item or a single block of items, and then you include additional items or blocks of items located elsewhere in the list.

Often, extended selection boxes in programs work like multiple selection boxes.

### Its Content

Usually, the multiple selection box presents its items in a list view. Typically, its items are disk drives, folders, and files.

### Its Navigation

You can freely navigate through a real multiple selection box. No item is initially selected, and no item is selected or deselected as you navigate through the box! (This detail gives you a way to tell whether a list box is a real multiple selection box or just an extended selection box masquerading as a multiple selection box.)

You must actively select an item or a block of items. Movement of keyboard focus doesn't disturb the currently selected items. Observe the similar uses of the modifier keys Ctrl and Shift in the procedures to select/deselect items. Here are the details.

### Single Item Selection

1. Place keyboard focus over the multiple selection list control.

2. Place keyboard focus over a non-selected item.

3. Tap the SpaceBar key.

This item is selected.

4. Move off the multiple list control.

### *Single Item Deselection*

1. Place keyboard focus over the multiple selection list control.

2. Place keyboard focus over a selected item.

3. Tap the Ctrl + SpaceBar key.

   This item is deselected.

4. Move off the multiple list control.

### *Single Block Selection*

1. Place keyboard focus over the multiple list control.

2. Place keyboard focus over a non-selected item.

3. Hold the Shift key and navigate over the items to be selected.

   All the items passed over are selected. That is, the block is selected.

4. Move off the multiple list control.

### *Selection Adjustment*

The simplest multiple-selection is that of a single item or a single block of items. A selection is adjusted (items included or removed) via two modifier keys: the Shift key and the Ctrl key.

### *The Shift Key*

1. Select a single item or a single block of items.

2. Place keyboard focus over a non-selected item.

3. Tap the Shift + SpaceBar key.

   The current selection is extended to this item.

### *The Ctrl Key*

1. Select a single item or a single block of items.

2. Place keyboard focus over a non-selected item--tap Ctrl + Navigation keys.

3. Tap the Ctrl + SpaceBar key.

This single item is added to the current selection.

# CHAPTER 31
# WORDPAD DOCUMENTS

You can accomplish many useful tasks in Vista, but the most important is to write and print documents (personal reminders, business letters, and the like) via a word processor. The WordPad program, which comes with Vista, is a mini-word processor powerful enough to meet the daily needs of most users. Most of the user interface elements of Vista are found in WordPad so it is an ideal program with which to practice. Master the WordPad program, and you are ready to tackle even the most sophisticated commercial word processor. This chapter, intended for the beginner, describes the various ways to write and edit documents in WordPad.

## Word Processor Overview

### Its Processes

You can write via many implements: stylus and tablet as the ancients did, stylus and slate as some blind persons do, chalk and blackboard as most teachers do, pen and paper as most people do, or via computer keyboard and printer as the lucky among us do! There are three common elements in all the processes that let you put your thoughts into readable form. You create (type or braille) text, edit (erase or rub out) mistakes, and format (layout or arrange) the text. All word processors let you do these three fundamental tasks.

These three basic processes (create, edit, and format) form a document with a plain appearance. There are three more processes that let you spruce up a document. You can embellish entered text (such as bold or underline it), generate special text (such as headers and footers), and arrange text in special layouts (such as lists or tables). This chapter describes how to enter, edit and format text and then briefly discusses how to embellish it.

### Its Checkers

After you finish it, you should check a document for several kinds of errors: misspelled words and improper capitalization, poor word usage, and bad grammar. Most commercial word processors (but not WordPad) come with a proofreader's toolkit. A program, called a Spell Checker, lets you check for and correct misspelled words and improper capitalization. Another program, called a Thesaurus, lets you look up synonyms and antonyms for a word; still another program, called a Grammar Checker, lets you clean up sentence structure and catch common grammatical errors. A commercial word processor can even give you document statistics such as number of words in document, average word and sentence length, and reading level. In addition, a dictionary (usually purchased separately) lets you look up word definitions and related items.

This chapter introduces you to the WordPad program and the fundamental concepts found in virtually every word processor. Read a section, and then try out the keystrokes and study the relevant concepts. There are no exercises in these sections. Practice instead with WordPad itself, for you cannot break anything! You will develop your own word processor style. Some people correct typos as they go; other people go with the flow and correct them later. Some people write and polish paragraphs as they work; other people write in a stream of consciousness and later clean up and rearrange bits and pieces of text. Some people write a long document in separate pieces and paste them together; other people work on a single very long document. All of these text gymnastics are possible and simple to do with a word processor.

Often, a couple of ways to do the very same task are discussed--sometimes under the same topic, and sometimes in different sections. For example, you can rely on its shortcut keys, or you may prefer its menu system. Pick the method that appeals to you and forget the others.

# WordPad Word Processor

A word processor is much more efficient--and much more fun--than a typewriter or a braillewriter. Vista comes with a simple yet useful mini-word processor called, WordPad, that lets you type, edit, format, and print small documents.

WordPad possesses many of the basic features found in commercial word processors, but has major limitations--to encourage you to buy another word processor after you get hooked. These limitations (e.g., no spell checker) are sure to inhibit serious writers but not occasional users.

# Its Launch Procedure

You must launch the WordPad program before you can use it. Follow these steps:

1. Tap either Win key to display the Start window.

   Vista places the text cursor in the Instant Search text box.

2. Type WordPad and wait a moment.

3. Tap the Enter key if the WordPad program has keyboard focus in the Results list. Tap the Tab key three times if not and then tap the Enter key.

   Vista starts up the WordPad program.

These steps launch the WordPad program and display its program window with an empty work area.

**Remark:** If you mistype WordPad in the Instant Search box, then no items will appear in the Results list. Move back onto the Instant Search box with the Down Arrow key and correct your typo.

## Its Maximize Procedure

Make sure that the WordPad window is maximized so its work area can hold as much text as possible. Here is how:

1. Pop up the Control menu with the Alt + SpaceBar key.

2. Expand the program window to full size and exit the control menu with the X key.

# WordPad Program Window

You should read the Program Windows chapter before you study this topic.

WordPad's program window has three distinct areas. The top area contains five bars, the middle or work area is empty until you type something in it, and the bottom area contains the status bar. Here is a guided tour of the WordPad window.

## Its Title Bar

The bar at the top, called the Title Bar, is laid out like this:

Icon Document - WordPad Minimize Restore Close

You can ignore the title bar buttons and, instead, rely on the Alt + SpaceBar key to display the Control menu tied to the WordPad program.

The title text for the WordPad program is:

Document - WordPad

in which Document is a placeholder for the as yet unnamed file and where WordPad is the program. The placement of the document name before the program name is meant to suggest that the document is the important thing rather than the WordPad program. The title icon, just left of the title text, is a smaller version of the icon assigned to the WordPad program. (This icon looks like a stenographer's notebook--a pad of paper with a spiral binding across the top. It is opened up and has a pen laid on it.)

# Its Menu Bar

The next bar, called the Menu Bar, is laid out like this:

File Edit View Insert Format Help

Six menus let you perform different kinds of tasks in the WordPad program. Here are brief descriptions of WordPad's six command menus.

File lets you manipulate a document (name, save, or print). Edit lets you alter text in a document (copy, or cut). View lets you display the program's window or the current document in various ways (using the show and hide tool bars). Insert lets you place stuff into a document (current date and time). Format lets you specify the document's layout (font and bullet style). Help lets you access helpful information about the program in general or about a specific task within the program.

# Its Tool Bar

The middle bar, called the Tool Bar, shows 11 tool buttons. For example, the far left button is a graphic that shows a single sheet of blank paper. Click this tool button to create a new empty document. The middle button is a graphic that shows a pair of binoculars. Click this tool button to find a particular word or phrase in a document.

A tool button lacks a text label, but possesses a little pop-up text box, called a Tooltip, that appears when the mouse pointer hovers over the tool button for a few seconds. A tooltip displays a mini-description of the tool button's

purpose. At the same time, the status bar displays a more extensive explanation.

**Access Note:** A screen reader may automatically announce a tooltip for a tool as it appears. Other screen readers make you manually assign a text label to a tool via a graphics label utility. Clearly, the former method is preferable, and the latter method is awkward and difficult. So, choose a screen reader carefully.

The list of tooltips for the WordPad tool bar is laid out like this:

New Open Save Print Print Preview Find Cut Copy Paste Undo Date/Time

All of these commands are also available via the menu bar so you can ignore this toolbar.

**Access Note:** Here are descriptions of all 11 WordPad tool buttons. The icon for the New button looks like a piece of paper with its top-right corner turned toward you--just as if you were turning a page. The icon for the Open button looks like a file folder opening up. The icon for the Save button looks like a floppy disk. The icon for the Print button looks like a printer with a piece of paper sticking out of it with print on it. The icon for the Print Preview button looks like the new icon with a magnifier on its right. The icon for the Find button looks like a pair of binoculars. The icon for the Cut button looks like a pair of scissors. The icon for the Copy button looks like two identical pieces of paper side by side. The icon for the Paste button looks like a jar of kindergarten paste and a brush. The icon for the Undo button looks like a curved arrow pointing left. The icon for the Date/Time button looks like a clock and a calendar.

# Its Format Bar

The next bar is called the Format Bar. The list of its tooltips is laid out like this:

Style Size Bold Underline Italic Color Left Center Right Bullets

The format bar presents two drop-down list boxes followed by seven buttons. These two lists let you select a type style (called a font) and a type size (given in points). The buttons let you embellish text (bold, underline, italicize), change the color of text, align text (place it on the left, in the center, on the right), and mark text via various visual indicators. All of these nine format controls affect a document's appearance when it is displayed and when it is printed.

# Its Ruler Bar

The bottom bar is called the Ruler because it lets you measure margins, indents, etc. This strip is a graphic with numerous visual components. A sighted user looks at particular parts of the strip to see current aspects of the document's format. There are, for example, visual markers that show the current paragraph margins. In addition, a sighted user can click various parts of the strip to alter aspects of the document's format. A sighted user can click, for example, the visual marker that shows the current paragraph indentation to change it. (You can alter the document's format via the Paragraph menu and from the pop-up menu displayed when you right click.)

**Access Note:** Typically, gadgets like ruler bars are (as of this publication) unsupported by screen readers. Often, their functionality is replicated in related command menus.

# Its Status Bar

The strip that extends the width of the window just over its bottom edge, called the Status Bar, is laid out like this:

Message Area Status Area

The message area displays comments from WordPad. The status area shows the states of two toggle keys--the CapsLock key and the NumLock key.

# Its View Menu

Title and menu bars are necessary, but the other four bars you can live without. WordPad lets you use the View menu to hide them when you need to clear off window real estate. These bars are displayed in the program window when their menu items are checked and are absent when their menu items are unchecked. Just select a menu item for a bar to switch it on or off because their menu items are toggles.

# Its Work Area

The parts of the WordPad window described so far are of interest but don't let you get much accomplished. The middle area of the program window-- the empty space between the bars at the top and at the bottom--is where you do the real work.

The text cursor--a little vertical bar that blinks at you--is initially placed in the upper-left corner of the work area. When you tap a Text key, its

character appears where the text cursor is currently located, and the text cursor jumps to the right to make room for the character. The text cursor moves to the right as you type more text and stays just ahead of the text. The text cursor marks the place where the next typed character will appear.

### *Typewriters and Braillewriters*

WordPad's work area is analogous to a blank sheet of paper that you put into a typewriter or a braillewriter. Just as you turn the roller on a typewriter or braillewriter to move up or down the page, you tap Navigation keys to move up or down through the text in the work area of WordPad. Just as you slide the print/emboss mechanism to move left or right on a line of a typewriter or braillewriter, you tap Navigation keys to move left or right through the text in the work area in WordPad. To move to a precise position on the print or braille page is quite a trick, but to move to a precise place in the WordPad work area is quite simple--just tap the appropriate Navigation keys.

Type some text, perhaps a paragraph on a print or braille page. It is impossible to move back to a particular typed/brailled word and put more text in front of it. However, this is a snap to do in the WordPad work area-- just move the text cursor in front of any word, and then type away. It is also quite impossible to erase a particular typed/brailled word and have the rest of the text flow back together. However, this is a cinch to do in the WordPad work area--just move to the undesirable word and delete it with a single tap of the Ctrl + Del key. The rest of the text flows back together as if the unwanted word were never there.

WordPad (and all word processors) lets you remove old text and insert new text. Navigation keys let you move to any place in the work area with ease and precision. Edit keys let you insert or erase text at will. The text reforms itself into proper paragraphs and pages as you move and edit. So long typewriters and braillewriters, hello word processors!

### *Text Entry Procedure*

Where you can enter text depends upon the state of the work area--whether it is empty or whether it already contains text.

### *Empty Work Area*

1. The text cursor is positioned for you in the upper-left corner of the work area.

   You begin to type here.

2. Type your text.

The typed text flows left to right with the text cursor just a step ahead.

### *Non-Empty Work Area*

1. Move the text cursor with Navigation keys to where you want the new text.

The insertion point is repositioned.

2. Type the new text.

The new text is placed at the current insertion point; this can be before or after all the current text or somewhere within it. The new text flows left to right with the text cursor just a step ahead.

# Its Scroll Bars

Type away, then the work area rapidly fills up with text. Eventually, the text spills outside of the window frame and scroll bars appear to indicate this. The appearance of a vertical scroll bar in the window next to the right border means that the document is taller than the window, and the appearance of a horizontal scroll bar in the window next to the bottom border means that the document is wider than the window. (A scroll bar appears only when the text in the document exceeds the window in that direction.)

To scroll means to push the window in a particular direction in order to reveal more of the document outside of the window in that direction. For example, you scroll up (push the window up) to reveal text that is currently over and outside the window.

Here is an analogy. Fill a sheet of paper with text; this is the document. Take another sheet of paper of the same size and cut out a small rectangle; this is a window. Place the second sheet on top of the first sheet. Only the text beneath the cutout (window) is readable. Push the top sheet left/right or up/down to reveal more text in the whole document in that direction. (The window moves in the opposite direction to the text--move the window upward to have the text flow downward.)

You can push a window around via the keyboard, as follows.

Tap Navigation keys to move the text cursor in the desired direction. Eventually, you reach a window edge; additional taps of these Navigation keys pushes the window in the desired direction:

1. Tap the Up key or the Down key.

   This moves the text cursor a line at a time. The window begins to move a line at a time after the text cursor reaches a window edge.

2. Tap the PgUp key or the PgDown key.

   This moves the text cursor up or down an entire window at a time.

# WordPad Type and Navigation Keys

After you type text, you can browse (move through and read) it via the standard Navigation keys discussed in the Computer Keyboard Operation chapter. Here are the details.

**Access Note:** A typical screen reader immediately reads text that is passed over. In addition, there are hot keys that let you reread text without the need to move the text cursor.

## Its Type Keys

When you launch WordPad, you are presented with its empty work area in its program window. Now, create a sample text--a short letter. Begin to type away, but please don't tap the Enter key as yet. The text cursor moves with every tap of a Text key. It starts in the upper-left corner of the work area and moves left to right as you type.

Something marvelous happens when the next word you type can't fit on the current line. WordPad pushes the word and the text cursor onto the next line. The text cursor is placed on the next line just after the word just typed by you and marks the place where the next text character will be. In other words, WordPad wraps (pushes) the text onto the next line when it runs out of room and lets you continue to type more text.

### The Enter Key

Type two lines of text, and then tap the Enter key twice. This double whack of the Enter key completes the current line and makes a blank line. Type two more lines of text. Tap the Enter key twice more; this double whack of the Enter key completes the current line and makes another blank line.

Type a very short line, and then tap the Enter key to complete it.

You should think of a document as a continuous stream of text interrupted every so often by a tap of the SpaceBar key to end words or a tap of the Enter key to end paragraphs.

The document you just typed contains three paragraphs. The last paragraph contains just a single line--perhaps Sincerely Yours or Best Regards to close the letter.

### *The Insert Key*

The Ins key, a toggle key, is discussed here for three reasons. To prevent you from accidentally erasing text, reversing such an error, and to edit forms efficiently.

### *Insert Mode*

When you type text, it is inserted at the text cursor, and any text to its right is pushed farther to the right. This is exactly what you want to happen when you need to place new text into preexisting text--such as a left out word between two other words.

### *Type-over Mode*

Type-over mode toggles with Insert when you tap the Ins key. New text writes over and replaces any text to its right. Type-over mode is seldom used when you write memos and letters, but it is handy when you fill out forms.

Sometimes the Ins key is tapped by accident. In this case, tap the Ins key again to return to Insert mode if the old text vanishes as you type new text.

**Access Note:** A typical screen reader allows you to assign a hot key to most any key on the keyboard. This novel feature lets you change the behavior of the Ins key: make the Ins key a hot key that voices the current character (the character at the cursor) rather than a key that switches between Insert mode and Type-over mode. Then, you have a convenient hot key to read the current character, and accidental text erasure can't happen! (You can still use Type-over operation when necessary; just have the screen reader pass the Ins key to the WordPad program.)

# Its Navigation Keys

You just wrote a block-style letter that contains four kinds of text units: characters, words, lines, and paragraphs. WordPad provides four kinds of navigation keys that let you move from text unit to text unit as next described.

## *Move Character by Character*

The Left key moves left a single character, and the Right key moves right a single character.

**Access Note:** A typical screen reader reads a character as you move the text cursor onto it via a tap of the Left key or the Right key. In addition, a screen reader possesses a hot key that, when tapped, reads the current character to you but leaves the text cursor unmoved. Use this hot key to read the current character! You can tap the Left key and then tap the Right key to read the current character, but you invite possible confusion and waste time and effort.

If you are at the left margin, then another tap of the Left key does something remarkable. It moves the text cursor to the prior character in the text which happens to be at the end of the prior line. In other words, the Left key lets the text cursor flow backward character by character through the text from line to line. If you are at the end of the line, then another tap of the Right key does something remarkable. It moves the text cursor to the next character in the text that happens to be at the start of the next line. In other words, the Right key lets the text cursor flow forward character by character through the text from line to line.

## *Move Word by Word*

A word is defined by WordPad as a sequence of text characters followed by a single tap or by multiple taps of the SpaceBar key, the Tab key, or the Enter key. In short, a word is a string of text characters followed by white space.

The Ctrl + Left key moves left a word and places the text cursor on its first character, and the Ctrl + Right key moves right a word and places the text cursor on its first character. These navigation keys skip as many blank spaces or blank lines as necessary to reach the first character of the nearest word.

A single tap of the Ctrl + Right key moves the text cursor from the word Dog onto the word Cat in the next two examples:

Dog Cat

Dog

Cat

**Access Note:** A typical screen reader reads a word as you move the text cursor onto it via a tap of the Ctrl + Left key or the Ctrl + Right key. In addition, a screen reader possesses a hot key that, when tapped, reads the current word to you but leaves the text cursor unmoved. Use this hot key to read the current word! You can tap the Ctrl + Left key and then tap the Ctrl + Right key to read the current word, but you invite possible confusion and waste time and effort.

### *Move Line by Line*

The Up key moves up a single line, and the Down key moves down a single line.

**Access Note:** A typical screen reader reads a line as you move the text cursor onto it via a tap of the Up key or the Down key. In addition, a screen reader possesses a hot key that, when tapped, reads the current line to you but leaves the text cursor unmoved. Use this hot key to read the current line! You can tap the Up key and then tap the Down key to read the current line, but you invite possible confusion and waste time and effort.

If you are at the start of the document, on the first line of the first page, then another tap of the Up key does nothing! The text cursor stays stuck on the top line no matter how hard or often you tap the Up key. If you are at the end of the document, on the last line of the last page, then another tap of the Down key does nothing! The text cursor stays stuck on the bottom line no matter how hard or often you tap the Down key.

### *Move Paragraph by Paragraph*

When you type continuously, text flows left to right, character by character, word by word, and eventually line by line. A tap of the Enter key breaks the text flow. A paragraph is defined by WordPad as all the text that precedes a tap of the Enter key. By this definition, even a single letter, word, or line is a paragraph when it is all the text that precedes a tap of the Enter key. In particular, a double tap of the Enter key ends the current paragraph and causes a blank line.

The Ctrl + Up key moves up a paragraph and places the text cursor on its top line, and the Ctrl + Down key moves down a paragraph and places the text cursor on its top line. These navigation keys skip as many blank lines as necessary in order to reach the top line of the nearest paragraph.

**Access Note:** A typical screen reader reads a paragraph as you move the text cursor onto it via a tap of the Ctrl + Up key or the Ctrl + Down key. In addition, a screen reader possesses a hot key that, when tapped, reads the current paragraph to you but leaves the text cursor unmoved. Use this hot key to read the current paragraph! You can tap the Ctrl + Up key and then tap the Ctrl + Down key to read the current paragraph, but you invite possible confusion and waste time and effort.

# WordPad Line Breaks

There are two kinds of lines in a document: those lines terminated by WordPad when it runs out of room, and those lines terminated by you when you finish a paragraph.

# Soft Line Breaks

You can type forever, and the text flows across the current line and then onto the next. You break the text into words with a tap of the SpaceBar key, and WordPad breaks the text into lines with the pretend (soft) Enter key.

The line breaks, which WordPad inserts for you, are called Soft Breaks because they change as you continue to insert and/or delete text. (Recall that WordPad automatically reformats lines and paragraphs after you edit the text!)

# Hard Line Breaks

You must insert your own line breaks when you want to end a paragraph. These line breaks keep the paragraphs apart in the text.

You break the text into paragraphs with a tap of the real Enter key. A tap of the Enter key finishes the current line and moves the text cursor to the start of the next line.

In other words, a paragraph is a stream of text, a few words or many lines, which is finished with a tap of the Enter key. A double tap of the Enter key finishes a paragraph and makes a blank line--both on the computer display and on the printed page.

A tap of the Home key places you at the start of the current line; a tap of the End key places you at the end of the current line.

Here are two useful paragraph tricks. Place the text cursor somewhere within a big paragraph and tap the Enter key. The big paragraph is split

into two smaller paragraphs. Alternatively, place the text cursor at the end of the last line of a paragraph and tap the Del key. The paragraph break is removed. This paragraph and the next paragraph are joined together to form a single big paragraph.

Consider how simple and useful the Enter key is! You can write a complete block-style letter just like the sample document without any other WordPad key. This single key does so much.

# Visual Line Breaks

Soft and hard line breaks are indistinguishable as you navigate through a document. However, you often need to find the hard breaks in order to insert additional blank lines, combine paragraphs, and so forth. Most commercial word processors (but not WordPad) let you display a favorite graphic character for hard breaks.

**Access Note:** Pick a graphic character for the hard break (paragraph marker) which a screen reader can recognize and announce. Tap the End key to move to the end of the current line, then that character is read if it is present. Tap the Enter key to cause a blank line or tap the Del key to combine paragraphs.

# WordPad Edit Keys

I type a paragraph and then use the Navigation keys to read through it. There are, more often than not, typos and other horrors found--extra words, misplaced words, and omitted words.

WordPad can help in many ways with the tedious and mostly boring document clean-up chores. It lets you erase unwanted text, insert missing text, and even rearrange pieces of text.

# The Erase Keys

You may realize that you just mistyped a character, just typed an extra character, or just tapped the SpaceBar key an extra time. On a typewriter or braillewriter, you must back up and erase by hand the unwanted character. WordPad, on the other hand, lets you tap the BackSpace key; it moves left and erases either the unwanted character or the extra tap of the SpaceBar key.

If you fail to catch an error on a typewriter or braillewriter until later, you often must retype the whole page. WordPad is much more forgiving. Just

move the cursor onto the unwanted character, wherever it is located, and tap either Del key. The unwanted character disappears, the text flows together as if the error was never there, and the cursor moves to the right.

WordPad has, in short, two erase keys that let you erase a single character at a time. The BackSpace key deletes the character to the left of the text cursor, and either Del key erases the character at the text cursor--really just to its right.

**Remark:** Every tap of the SpaceBar key places the Space character into the text. Usually, you tap the SpaceBar key once between words and twice between sentences.

You can configure Word to ensure consistent formatting between sentences using these steps:

  1. Launch Word 2007 and press Alt, F, I to display Word options.

  2. Move onto the Proofing item, and then onto the right pane with the Tab key.

  3. Activate the Settings button. (Press t.)

  4. Move down onto the 4th item, the last item under Required.

  5. Select the drop down arrow beside Spaces required between sentences. (Press SpaceBar.)

  6. Move onto 1 or 2 spaces and press the Enter key.

  7. Activate the OK button.

Try this and type:

    dog house

then use the Left/Right keys to move either onto the H, and then tap the BackSpace key or onto the Space character between DOG and HOUSE and then tap either Del key. Now, you have:

    doghouse

as a single word that is correct. In short, the Space character is just like any other text character, and the BackSpace and Del keys can erase it!

# The Erase Keys Again

The two erase keys, the BackSpace key and either Del key, let you delete a single character, but they also let you delete any currently selected text. Here is the gist of this very useful edit feature:

1. Select a block of text with the Shift + Navigation keys.

   The block can be a word, sentence, paragraph, or any odd fragment of text.

2. Tap the BackSpace key or a Del key.

   The block is instantly and completely erased.

3. Alternatively, begin to type text.

   The block is instantly and completely erased and immediately replaced by the typed text.

4. Immediately tap the Ctrl + Z key, the Undo key, in case of disaster--if you selected the wrong text, or if you wanted to do something else with it (instead of delete it) such as copy or move it.

   This key undoes the deletion. (The text is taken out of the trash and put back.)

# The Ctrl + Erase Keys

The BackSpace key and the Del keys let you correct single typos, which is quite wonderful, but WordPad lets you do even more. You can erase a single complete word with a single key tap. Use the Arrow keys or the Ctrl + Arrow keys to move onto the first character of a word. A tap of the Ctrl + BackSpace key erases the word to the left, and a tap of the Ctrl + Del key erases the current word. This word, with any punctuation marks and white space that trail it, disappears, and the text flows together as if the erased word were never typed. Afterwards, the cursor moves to the next word, when there is a next word, or to the end of the line.

These Delete Word keys let you replace any word with another. Delete the unwanted word, and then type its replacement. Retype any required punctuation marks and/or Space characters; otherwise, the replacement word jams up against the next word.

**Remark:** A word of caution about words: WordPad erases a word and any punctuation marks and any Space characters that follow it.

Consider:

   The dog house, and the cat

If you delete house, then you have:

   The dog and the cat

as expected. If you delete the last word on a line, the prior or next word and any Space characters that trail it become last on the line. You may then need to erase unwanted Space characters and retype punctuation marks.

# The Ctrl + Erase Keys Again

The BackSpace key and the Del keys let you delete a single character left of and at the cursor. Ctrl + BackSpace/Del keys let you delete a single word left of and at the cursor. They also let you delete the word fragment left and right of the cursor when the cursor is located within the current word. (This is fun but mostly useless.)

1. Place the text cursor within a word--with a character left and right of it.

2. Tap the Ctrl + BackSpace key to erase the left part of the word.

3. Alternatively, tap the Ctrl + Del key to erase the right part of the word.

**Remark:** These two less than useful situations are described here so you know what happens when the cursor isn't placed on the initial character of a word before you tap either the Ctrl + BackSpace key or a Ctrl + Del key.

# WordPad Character Attributes

So far, text in the document looks all the same. However, WordPad lets you embellish text fragments in three common ways. You can make it appear bold--darker and heavier, you can make it italicized--look slanted, and you can underline it--have underscores beneath it.

# Embellish Already Typed Text

You can embellish previously typed text in three steps:

1. Move to the text to be enhanced.

2. Select it with Shift + Navigation keys.

3. Apply the desired attribute to the selected text.

   There are two ways to do this: Tap the Ctrl + B, Ctrl + I, or Ctrl + U key; pick the Bold, Italicize, or Underline item from the Font menu.

**Access Note:** A typical screen reader can mention whether a text passage is augmented by character attributes as it reads it to you. In addition, you can tap a hot key to announce the attributes of the current character.

## Embellish Text as You Write

You can embellish text as you type it. You can, for example, bold text in three steps:

1. Tap the Bold key.

   A single tap of the Bold key Ctrl + B turns the bold attribute on.

2. Type the text to be bolded.

   It looks bold as you type it.

3. Tap the Bold key Ctrl + B again.

   A single tap of the Bold key turns the bold attribute off.

# CHAPTER 32
# WORDPAD FILE AND EDIT MENUS

Programs work only when you give them commands. Commands are listed in menus, and the names for these menus are placed in a menu bar. The menu bar is located just beneath the program's title bar. This bar has names for the available menus listed across it. Menu names are listed left to right. The most frequently used menus, File and Edit, are placed at the far left.

The commands in a menu are listed from top to bottom; the most frequently used commands are placed at the top. The Exit command is placed in the

File menu at the bottom--probably because this is the last command you need.

WordPad provides standard menus to display commonly used menu items. These very same menus and their items are used in most programs to give consistency to the user interface. This chapter, intended for the beginner, surveys the File and Edit menus found in WordPad.

# Its File Menu

WordPad (and all other word processors) stores a document in temporary memory as you type it. It remains there as you work. However, at some point, you must place it on disk--usually the hard drive, or a flash drive--in order to save it.

The leftmost menu, File, is the most important of all the menus. This menu lets you save any work in progress, retrieve any prior work, preview and then print a document, and, of course, exit WordPad when finished.

A menu item can have three parts: access letter, name, and perhaps shortcut key. An access letter lets you pick an item in a menu without the need to move onto it with Navigation keys. For example, press Alt + F to display the File menu, and press the letter O to pick the Open item. A shortcut key, when available, lets you bypass the menu entirely. For example, press Ctrl + O while in WordPad to pick the Open item in its File menu. Of course, you may always pick a menu item the long way:

1. Pop up the menu.

2. Move through its items with the Arrow keys.

3. Press the Enter key when on the desired option.

Rely on this method to familiarize yourself with the available menu items. Thereafter, use either access letters or shortcut keys to pick menu options.

Here's the list of File menu options with access letters and shortcut keys:

**n** New Ctrl + N

**o** Open Ctrl + O

**s** Save Ctrl + S

**a** Save As F12

**p** Print Ctrl + P

**v** Print preview

**u** Page setup

**1** Document 1

**d** Send to

**x** Exit Alt + F4

The most important items found in the File menu follows. Their mastery is vital because they occur in the File menu for virtually every word processor and in the File menus for most other programs as well.

# Save a New Document

Launch the WordPad program. Type and edit a document. You must give your document a file name in order to save it on disk. When you turn off the computer, then the copy of the document in temporary memory is discarded, but the copy on the hard disk is saved. Any changes made to the document in temporary memory, after the last time you saved the document onto disk, are lost when the computer is shut off--so save the document before you turn off the computer. There are two ways to save the initial copy of a document: tap the F12 key, or pick the Save As item from the File menu.

# Save an Old Document

You begin a new document and eventually save it. You work on it some more, and want to save it again--put the version currently in temporary memory onto disk. There are two ways to save a document: tap the Ctrl + S key, or pick the Save item from the File menu.

The document currently in temporary memory replaces that on disk. WordPad uses the file name you specified when you initially saved your document. Vista saves your document with a default file format and places it in the Documents folder.

Often, the right phrase, the clever sentence, or the lucid paragraph takes a lot of time and effort to write. So, protect it; take a moment to save it onto disk. Tap the Ctrl + S key after every major or important change to a document. No dialog box pops up. WordPad immediately saves the current document onto disk and lets you continue to work.

You may work on a document for a while and want to save the version currently in temporary memory and also keep the version already on disk. WordPad lets you do that. Display the Save As dialog box with a tap of the F12 key and give your current document a different file name. (I number versions of the same document sequentially--dog1, dog2, etc.)

# Open a Document

You place a document on disk to save it so you can read or work with it again at a later time or so you can print it. You must retrieve the document off the hard disk and place it back in temporary memory to do any of these tasks.

Launch the WordPad program. There are two ways to open (retrieve) a document: tap the Ctrl + O key, or pick the Open item from the File menu. A dialog box, entitled Open, appears. The text cursor lands in the text box which is part of the Open combo box. You only need to type the file name and press the Enter key. Vista remembers the document type and the Documents folder.

If you don't remember the file name, tap the Tab key repeatedly until you reach the list of the items in the Documents folder. Move through that list with the Arrow keys. Press the Enter key when on the desired file name. WordPad opens that document for you. (Recall that documents created with WordPad have the RTF suffix.)

# Numbered Documents

WordPad may have up to four numbered items listed near the bottom of the File menu. They are the most recently opened documents. If you pick a number, its document is opened and the Open box is bypassed. This numbered list is a great time saver when you frequently access the same documents. Follow these steps to pick a file by number:

1. Pop up the File menu with the Alt + F key.

2. Press the Up Arrow three times. You move onto a file with a number.

3. Press the Enter key when on the desired numbered file.

# Print a Document

Vista provides a uniform print facility that supports virtually all printers. All Vista programs rely on this print facility (instead of their own) to carry out their print chores.

It is assumed that a printer is properly installed and hooked up to your computer and plugged into a common power strip. The printer comes alive and is ready to work when your computer is powered up.

There are two print items in the File menu because there are two places where a sighted user wishes to print a document: on the computer display and on paper. A sighted user likes to preview the print document before it is really printed. This saves time and paper. Recall that Vista supports WYSIWYG--What You See Is What You Get--so the displayed document looks just like the printed document. Typically, a savvy sighted user print previews the document to check its format and makes any necessary corrections to its layout and then really prints the document.

Print Preview is completely useless to a blind user. Forget about it unless a sighted peer needs to use it.

You can quickly print a document or a part of a document:

1. Launch WordPad.

2. Open the document to be printed (and optionally select a part of it).

3. Tap the Ctrl + P key, or pick the Print item from the File menu.

Set back and relax. The printer warms up and then starts to print. You are still in the document as if nothing happened.

Always save a document, if you have changed it, before you try to print it! This avoids loss of last minute work if something goes wrong. Something usually goes wrong, so says Murphy's law, especially when you are ready to print the last draft of a masterpiece.

# Exit WordPad

The two menu items New and Open let you work on a file--begin a new file and retrieve an old file. The two menu items Save and Save As let you put a file away--update it on disk and place another copy of it on disk. However, the most important command in the File menu is Exit, for it lets you save any work still in temporary memory and then quit the WordPad program. The Exit command is placed at the bottom of the File menu--probably

because it is the last command you need before you dismiss the WordPad program.

There are three ways to exit the WordPad program and close its window: tap the Alt + F4 key, pick the Exit command in the File menu, or pick the Close command in the Control menu. Vista offers you plenty of ways to leave a program. A tap of the Alt + F4 key (the shortcut key for the Exit item) is the fastest way to exit a program. A message box pops up when you have work to be saved. You can elect to save it or discard it.

# Its Edit Menu

WordPad (and all other word processors) lets you correct errors as you work. You can erase stray characters or words as you type or as you proofread a document. You can even insert text that was accidentally omitted. These basic edit tasks are accomplished with the Erase keys and the Insert mode as described in the previous chapter.

There is a set of delightful features that transcends the erase feature. You can select any block of text and then perform various actions upon it. Typically, there are five edit actions found in a commercial word processor.

Embellish Text: you can, after you select a block of text, put it in Bold, Italics, or Underline with a single key tap. This is a necessary procedure when the text is already typed! These basic embellish tasks are accomplished with the three Attribute keys as described in the previous chapter.

Reformat Text: you can, after you select a block of text, change its layout or its type style. You can, for example, select the entire document and then alter its margins via the Format menu or pick a different type size via the Font menu.

Convert Case: you can, after you select a block of text, convert it into all upper case. This is quite helpful when you wish to use that text as a title. (WordPad lacks this ability.)

Cut and Paste: you can, after you select a block of text, cut it out of the document and paste it elsewhere in the document. This ability lets you rearrange sentences, paragraphs, and so forth.

Copy & Paste: you can, after you select a block of text, make a duplicate of it and paste it elsewhere in the same document or in a different document. This is rather convenient when you need to repeat a piece of text at various places in a document. You may, for example, need to place your name and

address at several spots in the document; you can copy and paste it rather than retype it.

When you select a block of text, it becomes the center of attention. WordPad highlights the block to emphasize this fact and treats it differently. Certain menu commands like Cut, Copy and Paste only come alive when a block is selected and remain dormant (grayed out, disabled) otherwise.

The menu to the right of the File menu on the menu bar, the Edit menu, is the next most important of all the command menus. This menu lets you rearrange text and, of course, undo a misguided shuffle command. This menu also lets you search for particular text in a document and even replace it with other text. It is laid out like this:

**u** Undo Ctrl + Z

**t** Cut Ctrl + X

**c** Copy Ctrl + C

**p** Paste Ctrl + V

**s** Paste Special...

**a** Clear Del

**l** Select All Ctrl + A

**f** Find Ctrl + F

**n** Find Next

**e** Replace Ctrl + H

**k** Links

**r** Object Properties Alt + Enter

**o** Object

Here are the most important items found in the WordPad Edit menu. Their mastery is vital because they occur in the Edit menu for virtually every word processor and in the Edit menus for most other programs as well.

# Delete a Block

The two Erase keys, BACKSPACE and Del, presented in the previous chapter let you delete the current character or word. They also let you delete any currently selected block; this is the primary way to delete a weird fragment of text. Here is the gist of this very useful edit procedure:

1. Select a block via the Shift + Navigation keys.

   The block can be a word, sentence, paragraph, or any odd fragment of text.

2. Tap the BACKSPACE key or a Del key.

   The block is instantly and completely erased and tossed into the trash.

3. Immediately tap the Ctrl + Z key, the Undo key, in case of disaster--you selected the wrong block, and you wanted to do something else with it instead of delete it.

   Ctrl + Z undoes the deletion. The block is taken out of the trash and put back.

This process lets you remove a block and put it back when necessary, but it doesn't let you move it elsewhere or duplicate it. You need the Vista Clipboard and the three amigos--Cut, Copy, and Paste commands--to accomplish these kinds of tasks.

# Move a Block onto the Clipboard

Vista sets aside a portion of temporary memory, called the Clipboard, to hold a scrap from a document. You can stick any scrap on the Clipboard. It stays stuck there till you power off your computer or till you replace it with a different scrap.

You stick a document scrap on the Clipboard so you can place it elsewhere in the document. Here are the sticky details.

### *The Cut Item*

You probably write, like most authors, a page of text paragraph by paragraph. You may realize with dismay that the paragraphs are out of order. You could, of course, retype the page, but this is laborious and fortunately unnecessary.

You can rearrange paragraphs (or whatever) in five steps:

1. Navigate to the misplaced paragraph by whatever technique you prefer.

2. Select this paragraph by whatever technique you prefer.

3. Cut the selected paragraph out of the document.

   There are two ways to do this: tap the Ctrl + X key; pick the Cut item from the Edit menu.

4. Navigate to the place where you want to place the paragraph.

5. Paste the paragraph back into the document.

   There are two ways to do this: tap the Ctrl + V key; pick the Paste item from the Edit menu.

Sometimes, you may have to do a bit of clean up after a paragraph swap--insert or delete a blank line. You can insert a blank line with a tap of the Enter key. You can remove a blank line in two steps: tap the Home key while on a blank line, then tap the BackSpace key.

### *The Copy Item*

Often, you may need to duplicate text in a document. For example, you may need to place your address at various places in a document--on the title page, on the price sheet, and so forth. You could, of course, retype the text whenever you need it, but this is tedious, likely to cause errors, and quite unnecessary. Here is how to duplicate (copy) text in a document.

You can copy text in five steps:

1. Navigate to the text to be copied by whatever technique you prefer.

2. Select all of it by whatever technique you prefer.

3. Copy the selected text.

   There are two ways to do this: tap the Ctrl + C key, or pick the Copy item from the Edit menu.

4. Navigate to the place where you want to reproduce the text.

5. Paste the text into the document.

   There are two ways to do this: tap the Ctrl + V key, or pick the Paste item from the Edit menu.

Now, the same text appears at two places in the document, at the original place and at the new place.

### *The Select All Item*

You can select the entire document instead of just a piece. This is handy when you wish to paste the entire document on the Clipboard or the Desktop. (Lawyers often do this with standard documents called Boilerplate Text.)

There are two ways to do this: tap the Ctrl + A key, or pick the Select All item from the Edit menu.

### *The Paste Item*

The two commands Cut and Copy place a document scrap on the Clipboard. The other command, Paste, takes the scrap off the Clipboard. There are two ways to take a scrap off the Clipboard and paste it in a document: tap the Ctrl + V key, or pick the Paste item from the Edit menu.

You navigate to the place in the document where you want to insert (paste) the scrap, and then you invoke the Paste command to put it there. The pair of commands Cut followed by Paste moves a piece of the document; you move it from here to there. Here are the Copy and Paste steps in summary:

1. Select a block of text.

2. Cut it or Copy it onto the Clipboard.

3. Place the text cursor elsewhere in the document.

4. Invoke the Paste command to insert the scrap at the text cursor.

You can paste (duplicate) the same scrap as many times as you want throughout a document and even in different documents. (The same scrap stays on the Clipboard as you open different documents.)

The two menu items Cut and Copy are disabled (gray in color) when no block is selected. That is, you must select a block before you can invoke either of them. In addition, the Paste item is disabled (gray in color) when nothing is on the Clipboard.

### *The Undo Item*

The three amigos are powerful commands that let you rearrange pieces of a document. However, they are also dangerous commands, for you can create

havoc in a document with a single key tap. The three commands Copy, Cut, and Paste have control letters in sequence in the Front row of the Main keyboard at the left. Therefore, the Z key at the far left is a good choice to reverse the action of the three keys to its right. If you tap the Ctrl + C, Ctrl + X or Ctrl + V key by mistake, immediately tap Ctrl + Z to undo (reverse) its effect. However, perform another task beforehand, and then the Undo key, more often than not, looses its magical power to reverse the effect of the misguided command.

There are two ways to undo a command that went wrong: tap the Ctrl + Z key, or pick the Undo item from the Edit menu. This command is explained in terms of the three amigos, but it works in most situations; try it when you get into a jam. In a typical situation, if you erase the wrong text or accidentally embellish a selected block, you can get it back with the Undo command.

# Move a Block between Documents

The techniques explained so far let you move a block from here to there in a single document. You can, in other words, rearrange pieces of a single document.

### *Dual Documents*

Often it is desirable to move a block between two documents. You may, for example, wish to send out invitations to different people with the same message. It would be nice if you could write the message in a separate document and then paste it into the individual invitation letters. You can do just that thanks to the multi-tasking ability of WordPad.

Suppose you have two documents named Invite, a standard invitation, and Friend, a best buddy's address. Minimize all windows to clear off the Desktop. Here are the steps to paste the invitation into the friend's letter:

1. Launch the WordPad program.

2. Open the Invite document.

   The Invite - WordPad button is placed in the Switch Area of the Taskbar.

3. Select the block--the entire document.

4. Invoke the Copy command.

   The invitation is placed onto the Clipboard.

5. Launch the WordPad program again.

   WordPad lets you do this because it is a great multi-task master.

6. Open the Friend document.

   The Friend - WordPad button is placed in the Switch Area of the
   Taskbar.

7. Position the text cursor in the Friend document where you want to place
   the invitation.

8. Invoke the Paste command.

   The invitation on the Clipboard is pasted right where you want it.

You are all finished. Now, save and/or print this friend's invitation letter.
You can then open another friend's letter and do the same thing again.

**Remark:** You can, if you prefer, work with a single copy of WordPad at a
time. Here is how: (1) Launch WordPad, (2) open the Invite document, (3)
copy the desired text onto the Clipboard, (4) then open the Friend
document--this closes the Invite document, (5) and finally paste the text into
it.

# Hide and Go Seek Commands

If you write a long document like this book, inconsistencies are sure to
arise. The abbreviation for Microsoft Windows Vista occurred capitalized
three different ways--vista, Vista, and VISTA--in drafts of this book because
of typos and slips of the Shift key. So, what to do? Well, I could read the
manuscript from start to finish and delete errors and retype as I browse.
This method works but has two major drawbacks: it is tedious, and I refuse
to do all that work. Besides, I may miss an error or make a new error.

WordPad, unlike me, is totally consistent when it does a repetitive task like
find the same error, and make the same correction. Therefore, I let
WordPad find an error and replace it with the correction throughout the
document. Here is how these repetitive alterations are accomplished.

### *The Find Command*

WordPad can find any particular word or phrase within a document. You
only need to open the document and then instruct WordPad to search for it.
Here are the details.

The Find Items

1. Launch WordPad.

2. Open the document in question.

3. Place the text cursor where you want the search to start.

4. Display the Find dialog.

   There are two ways to do this: tap the Ctrl + F key or pick the Find command in the Edit menu.

A dialog box, entitled Find, appears when you commence a search. You must specify the necessary items and press the Find Next button to begin the search process. Here is a guided tour of the Find dialog box.

There is a text box--Find what --where you type the word or phrase you wish to find. There are two unchecked check boxes. Check the box labeled Match Whole Word when you want WordPad to only find a specific word and no bigger words; leave it unchecked when you want WordPad to find that word and all bigger words. For example, type the word dog in the edit box. Then, the words dog, Dog, and DOG are only found when this box is checked. However, the words dog, Dog, and DOG as well as dogs and doghouse are found when this box is left unchecked. Check the box labeled Match Case when you want WordPad to only find a word with specific capitalization; leave this box unchecked when you want WordPad to find all forms of that word. For example, type the word dog in the edit box. Then, the words dog and dogs are only found when this box is checked. However, the words dog and dogs as well as Dog and Dogs are found when this box is left unchecked. Check both check boxes when you want an exact match--just the word dog--to be found.

There are two push buttons. Find Next locates the next occurrence of the search text. Cancel halts the search process and closes the Find dialog box. Just tap the Esc key to press this button.

This dialog box lacks the OK button. Instead, a tap of the Enter key presses the find Next button so you can search for the next occurrence of the text in the document. Repeatedly tap the Enter key to jump through the document from search text to search text. WordPad warns you when you reach the last occurrence of the search text. It pops up the message box:

   WordPad has finished searching the document.

Acknowledge this message with a tap of the Enter key. You return to the Find dialog. You can tap the Esc key to exit the Find dialog.

### *The Find Keys*

You can search for a word or a phrase with the Find dialog as just explained. The two most important elements in this dialog box are the Find box that lets you specify the search text and the Find Next button that lets you start the search. The two Match boxes are only used when you wish to restrict the search.

You can instead specify the search text and start the search with the keyboard. Here is how:

1. Select a word or a phrase in the document.

2. Tap the Ctrl + F key.

   The Find dialog pops up, and the selected text is placed in the Find box.

3. Tap the Enter key to press the Find Next button.

   This starts the search.

4. Tap the Esc key to cancel the Find dialog.

   This removes the dialog window off the Desktop.

5. Tap the F3 key to find the next occurrence of the search text.

You can find subsequent search text with repeated taps of the F3 key. You no longer need the Find dialog.

**Access Note:** This key approach to a search works better with most screen readers, for they don't become confused by the presence of the Find box window. You may need to tap a Left/Right key to have the screen reader place its focus at the just found text. WordPad places the text cursor after the text.

### *The Find Tasks*

The navigation keys let you browse a document line by line, paragraph by paragraph, etc. That is, they let you move through a document step by step. This is handy when you want to browse consecutive text on a page for a particular tidbit.

However, most of the time you won't know which page to browse. You can rely on the Find command in this situation. Just move to the top of the document, and then search for the title or whatever you wish to locate. WordPad places you on the page with that title, and then you can browse the topic.

You can, as you write a document in WordPad, place "bookmarks" throughout the document that you can find later on. I often type a star character (Shift + 8) in my text so I can jump back there later on. (Most commercial word processors let you insert and find real bookmarks.)

### *The Replace Command*

WordPad can find any particular word or phrase within a document and then replace it with different text. You only need to open the document and then instruct WordPad to make the replacement. Here are the details.

The Replace Item

1. Launch WordPad.

2. Open the document in question.

3. Place the text cursor where you want the replacement to start.

4. Display the Replace dialog.

   There are two ways to do this: tap the Ctrl + H key, or pick the Replace command in the Edit menu.

The dialog box for the Replace command is the Find dialog with three additional elements to manage the replacement process.

There are two text boxes. Type the item to be replaced in the Find What text box, and type its replacement in the Replace With text box. There are two unchecked check boxes. Check the box labeled Match Whole Word when you want WordPad to only find a specific word and no bigger words; leave it unchecked when you want WordPad to find that word and all bigger words. For example, type the word dog in the edit box. Then, the words dog, Dog, and DOG are only found when this box is checked. However, the words dog, Dog, and DOG as well as dogs and doghouse are found when this box is left unchecked. Check the box labeled Match Case when you want WordPad to only find a word with specific capitalization; leave this box unchecked when you want WordPad to find all forms of that word. For example, type the word dog in the edit box. Then, the words dog and dogs are only found when this box is checked. However, the words dog and dogs as well as Dog

and Dogs are found when this box is left unchecked. Check both check boxes when you want an exact match--just the word dog--to be found and replaced.

There are four push buttons. Find Next locates the next occurrence of the search text. Replace makes a substitution for this particular occurrence of the found text or replaces the next occurrence of that text. Replace All automatically replaces all occurrences of the search text. Cancel halts the search process and closes the dialog box. Just tap the Esc key to press this button.

This dialog box lacks the OK button. Instead, a tap of the Enter key presses the find Next button so you can search for the next occurrence of the text in the document. Repeatedly tap the Enter key to jump through the document from search text to search text. WordPad warns you when you reach the last occurrence of the search text. It pops up the message box:

WordPad has finished searching the document.

Acknowledge this message with a tap of the Enter key. You return to the Replace dialog. You can tap the Esc key to exit the Replace dialog.

### *The Replace Key*

You can replace a word or a phrase with the Replace dialog as just explained. The three most important elements in this dialog box are the Find box that lets you specify the search text, the Replace box that lets you specify the replacement text, and the Replace All button that lets you make changes throughout the document. The two Match boxes are only used when you wish to restrict the replacement.

You can specify the search text and commence the replacement with the keyboard. Here is how:

1. Select a word or a phrase in the document.

2. Tap the Ctrl + H key.

   The Replace dialog pops up, and the selected text is placed in the Find box.

3. Type the replacement text into the Replace box.

4. Tap the Tab key to move onto the Replace All button and tap the Enter key.

This performs the replacement throughout the document.

5. Tap the Esc key to cancel the Replace dialog.

This removes the dialog window off the Desktop.

### *The Replace Tasks*

The feature, Find and then Replace with, lets you make global corrections and lets you type much less. Here is how you can benefit from this feature when you write.

You can use this dialog box to make sure that a standard phrase throughout a document is always consistently capitalized. You can, for example, ensure that the phrase Vista is always capitalized the same way throughout a document. Here are the steps:

1. Open the document and place the text cursor at the very top of the document--so you catch all the Vista abbreviations.

2. Type the word Vista in the Find box as the text to be replaced.

3. Type the proper form of the word in the Replace box--initial letter of Vista capitalized.

4. Check the Match Whole Word box--so you replace precisely the word.

5. Leave the Match Case box unchecked--so you replace Vista, Vista, and Vista all with the properly capitalized word.

6. Press the Replace All button so you replace every occurrence of the text.

You can use this dialog box to type much less when you write:

1. Pick a few well-chosen abbreviations to type instead of the longer text they represent: PC = personal computer, Vista = Microsoft Windows Vista Premium Edition, wp = word processor; and so forth.

2. Type these abbreviations consistently throughout the document.

3. Replace all of them with the text they represent when you are finished with the document.

**Remark:** Microsoft Word has a facility called AutoCorrect that makes these replacements for you as soon as you type their abbreviations.